

Britain may join US on reusable satellites

by Robin McKie
Science Correspondent

The Science Research Council is contemplating British participation in the development of a revolutionary satellite system which could allow experiments to be interchanged in orbit. If given the go-ahead, the multi-reusable satellite (MRS) would be expected to form the backbone of United Kingdom space research for much of the 1980s and 1990s and would be operated in collaboration with the Americans.

At present scientists and engineers at SRC's Appleton laboratory are undertaking a critical study of the design limits and potential capability of the MRS, in co-ordination with a similar study being carried out by the National Aeronautics and Space Administration in the United States.

The new satellite would be based on a modular spacecraft system now under construction in America and when developed would be launched by the Space Shuttle. Each MRS construction and launch would cost about £20 million and would provide a very large and varied payload of experiments—a factor which would please many British space scientists who are currently pressing for greatly increased carrying volumes on future space missions.

The Appleton team is considering two versions of the MRS. The first

would involve returning the satellite to Earth to replace experiments, the second would have the interchange taking place while still in orbit. This latter option is cheaper and more flexible, but, technically, would be extremely difficult to operate.

The satellite design would have two distinct parts. The first—based on the American modular space craft—would be a triangular prism with 4ft square sides carrying the attitude control, power and data handling units. This would be attached to the experiment payload which would be aligned in boxes on the outside of the craft. The Space Shuttle, scheduled for launch in the early 1980s, has already been designed to carry instruments which would allow its crew to remove these boxes and replace them with other experiment packages while in orbit.

The group at Appleton is expected to report to the SRC at the end of the year, and if both American and British views are favourable, a full-scale feasibility study would then be started. If approval is then given, the first launch of an MRS vehicle would be expected in about 1985.

However, the MRS project is unlikely to succeed unless it is undertaken as a joint international venture. The Americans are known to be keen to have UK involvement to help get funding for the project.

Judge rules against Maynooth on dismissal of professor

The dismissal of a professor at Maynooth College in the Republic of Ireland after he applied to leave the priesthood was ruled, a High Court judge in Dublin has ruled.

Mr Justice Hamilton found that the trustees of Maynooth, a combined seminary and secular university, did not give Dr P. J. McGrath, former professor of general metaphysics, a chance to state his case. He will not be reinstated but will receive damages instead.

But the trustees—four archbishops and 13 bishops—acted in good faith and according to laid-down procedures when they dismissed Mr McGrath from his job as lecturer in modern languages, the judge ruled.

In a reserved judgment on the case, handed in June (THE TIMES, June 23) the judge said the sacking early last year did not unlawfully interfere with Mr McGrath's rights under the Irish constitution.

The fact that Maynooth was a recognized college of the National University of Ireland and received state finance for the provision of secular education was not relevant. Mr McGrath had claimed his decision to leave the Catholic priesthood was not a ground for dismissal from a post paid for out of public funds.

A number of charges were made against the two men, including failure to wear clerical dress or live on the campus, and writings prejudicial to the teaching authority of the Church. But the judge decided that the real reasons for their dismissal were that Dr McGrath's case had left the priesthood, and that Dr McGrath's had applied to do so.

It was not open to him on the evidence to find that the trustees had acted maliciously in dismissing Mr McGrath, Mr Justice Hamilton said. They had followed procedures laid down.

Mr Paddy O'Flynn, president of the Irish Federation of University Teachers, which has spent about £10,000 defending the two men, said the decision appeared to confirm the right of the bishops to control Maynooth "in the interests of seminary education without reference to its multiple character as a university as well as a religious institution."

"In the light of that decision we will have to re-examine our own view of Maynooth as a proper part of university structures in Ireland,"

and must call the attention of our academic colleagues internationally to this as well."

IFUT will not decide what action to take until next month. But possibilities include an appeal to the Supreme Court or a blocking of posts in the college.

At the very least IFUT will tell the situation, through advertisements in academic journals or through the International Association of University Professors and Lecturers.

A visit by IAULP, under a procedure agreed last May for investigating alleged breaches of academic freedom, is also possible.

Prospective applicants will be told "that the judgment effectively rules that the major educational aspect of Maynooth is that it is a seminary for priests of the Roman Catholic religion and that normal university considerations such as academic freedom and security of tenure do not have equality with that primary consideration," says IFUT's executive secretary, Mr Kieran Mulvey.

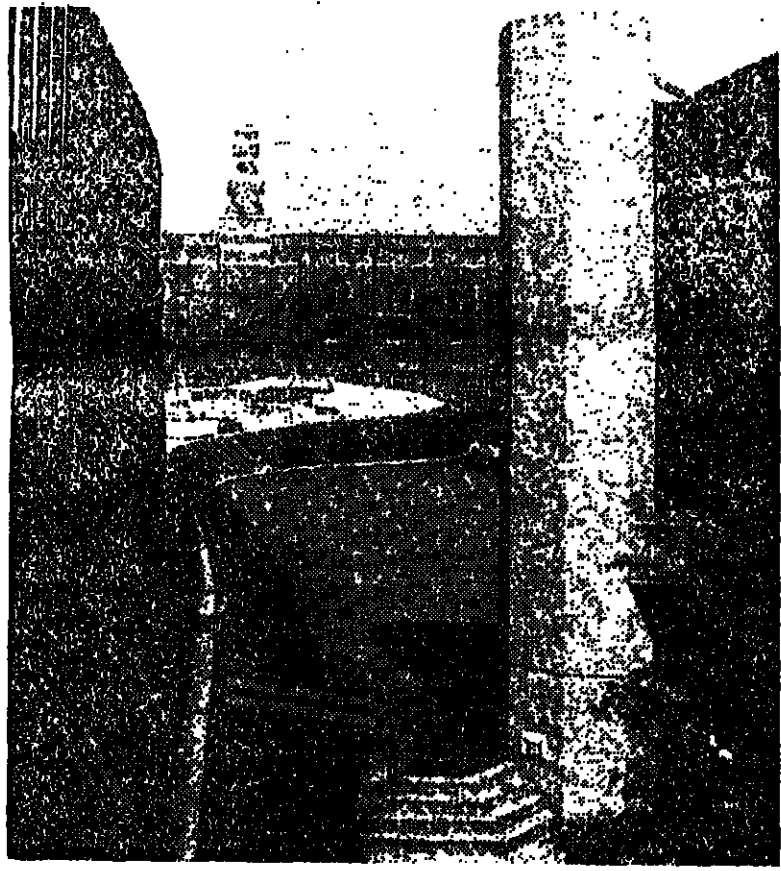
The decision is viewed as meaning that the trustees can sack whoever they like, on whatever grounds they like—provided they abide by the procedures they themselves lay down within the 1795 law which established Maynooth.

One trade union official suggested that the case has implications for all employees who seek the protection of legislation on unfair dismissal if the court is satisfied with the employer's action so long as the correct procedures have been observed.

The case also has apparent major political and constitutional implications. Observers are now wondering how the Irish government can continue more than £1 million a year to Maynooth if the trustees can rule the secular university in the same way they govern the Catholic seminary—including hiring and firing of staff who teach solely in the secular university.

The Catholic Press and Information Service briefly said the judgment was a long one and would require careful study.

College president the Rev Dr Michael O'Brien said the judge made some important points, on the special character of Maynooth and on the rights of the trustees to make statutes and act on them.



The new Keble College building coils round its quadrangle.

RIBA awards go to Keble and Sainsbury Centre

The Sainsbury Centre for the Visual Arts at East Anglia University and the new building at Keble College, Oxford, are among the 30 winners of the 1978 Royal Institute of British Architects' Architecture Awards which this year attracted the highest number of entries in the scheme's 13 years' history.

Described by Mr Gordon Graham, RIBA's president, as one of the three most outstanding buildings created this century, the Sainsbury Centre is set in an ideal environment for the study of visual art, provided by the sophisticated modulation of space, light and atmosphere.

The architects, Foster Associates, inserted the building into the network of roads and services anticipated by Sir Denys Lasdun's original masterplan with an overhead bridge linking the existing pedestrian spine directly into the new complex. The centre combines two extensive exhibition galleries, a large reception conservatory, a

school of fine arts, a faculty club and a basement with storage and workshop facilities.

Alfred Burton and Koroluk's new building forms a modern addition to the mid-Victorian splendour of Keble College, widely regarded as one of the most notable examples of William Butterfield's work. Colling round the southern edge of the site to form a quadrangle, the new linear-shaped residential buildings occupies a small area within the existing college precincts. Its long frontage terminating at the north end and near one of the most dominant public ends of the ornate Victorian blocks.

The new building is housed in a serpentine buff brick wall, one room thick punctuated by vertical service towers with a glazed walkway. This leads not only to study bedrooms but links the block with a new, loosely planned cluster of amenities including a bar and restaurant and with the communal facilities of Butterfield building to the east.

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BASW faces internal revolt

The British Association of Social Workers faces an internal revolt this week following its decision to call off a dispute with Aberdeen University over the appointment of an "unqualified" academic as professor of social work.

The association's Aberdeen branch is to meet on Monday to decide whether to endorse the view of their branch executive that the dispute was called off prematurely without any of the association's main demands being met.

In a letter to *Social Work Today*, the association's house journal, Mr Brian McWilliam, Aberdeen branch secretary, expresses "alarm and dismay" at BASW's decision.

Meanwhile the association came under criticism from other members this week for persisting in a parallel dispute with the London School of Economics, over the recent appointment of Professor Robert Pinker to a chair of social work studies.

Mrs Joan Williams, a lecturer in social work studies at the LSE, claimed that the majority of tutors and fieldwork supervisors at the school did not support BASW's call for a boycott. She said most LSE placements despite the ban.

Action pledge at Teesside

Urgent action has been promised to make whatever changes are needed to improve the management of Teesside Polytechnic, which has been criticised by the Council for National Academic Awards.

Members of the polytechnic governors, the academic board and Cleveland councillors have been called for mid-September to discuss the CNA report.

The polytechnic, which has been warned it may lose CNA approval for its degree courses if changes are not made, is careful not to admit any of the criticism until the meetings take place.

But a joint statement by the chairman of Cleveland education committee, Mrs L. M. Thompson, and the acting chairman of the academic board, Mr Colin Over, shows a determination to make sure the threat is not fulfilled.

The statement reads: "From our initial reading of the report we believe the local education authority, governors, and academic board will wish to ensure appropriate action in relation to those matters on which the report is critical."

Recognition for doomed certificate

More than a dozen professional associations have agreed to waive their normal entrance requirements to accommodate holders of the Certificate in Education. From more widespread recognition came just as the qualification is phased out.

The changes were prompted by letters from Mr Gilbert Scott, careers officer at Newcastle Polytechnic, to a number of associations and institutes. The polytechnic has been encouraging students to take outside teaching because of a continuing shortage of post-graduate, trained teachers. It faced the greatest employment problems in recent years.

Against his expectations, Mr Scott received favourable replies from a number of bodies, including the Institute of Accountants, the Institute of Management, the Society, the Museums Association, and the bodies representing bank managers, chartered secretaries and administrators.

Those bodies which have been able to waive requirements have made the possession of two or three years' experience a condition of membership, thereby debaring the majority of certificate holders, who joined courses at the strength of O level passes. All those that three years' experience more than compensated for lack of earlier qualifications.

Although the changes will guarantee any more jobs for graduates trained teachers, Mr Scott felt it was significant that others were able to see opportunities in other careers. Some associations have never considered recognizing a certificate, while others were prepared to alter existing policy.

The polytechnic is to repeat short course run for the first time this year, designed to help certificate holders take another career. The majority of those who attended this year course are now in jobs using teaching and next year the course will be lengthened to give students a day with local employers.

Scots may force change in grading

This means that a student's grade has to be decided well before the results are available and may therefore be based on work done in the second year.

The National Union of Students met the Convention of Scottish Universities last month to press for the abolition of the system. The union's complaints will be put to the October meeting and both sides agreed that any national system should be universally operated.

Councillor George Foulkes, education convener of COSA, suggested that some students could appear to have different results from their internal mark because of the variable classification.

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£300m a year warning on longer degrees

from Clive Cookson

It would cost about £260m a year in current expenditure and another £40m in capital investment to extend British undergraduate courses from three years to four, a senior official warned this week.

Mr Ralph Toomey, undersecretary for further and higher education at the Department of Education and Science, released these figures at the Commonwealth Universities Congress in Vancouver. He emphasized that they were provisional but they were clearly intended to check the growing talk in universities about the need to move to four year courses, particularly if the GCE A level examination is replaced by less advanced N and F levels.

He acknowledged that pressure for longer honours degree courses to maintain academic standards would inevitably follow the introduction of N and F levels, and some of the British vice-chancellors and professors in his audience indicated that pressure was already building up in their institutions.

"I am sure there would be strong resistance from central government to any appreciable extension of the length of the first degree course because of the vast additional expenditure," Mr Toomey said.

If all new students moved into four year courses from 1981-82, universities in England

and Wales would require an additional £40m a year recurrent grant and £20m equipment grant (at today's prices) by 1984-85, he estimated. Capital expenditure of £570m on new university buildings would be needed, spread over four or five years.

If polytechnics and other institutions of higher education also moved to four year degrees they would have to spend an additional £120m a year on recurrent grants and £400m on new buildings. Student grants in the public sector would increase by £40m a year.

The Government had "significantly" omitted to mention the possibility of extending undergraduate courses as a way to mitigate the effects of declining enrolments after 1983 in the discussion document "Higher education into the 1990s".

"This seems to indicate that for the foreseeable future the three-year first degree course is expected to remain the normal pattern in universities, in England and Wales at any rate, for full-time students, and that an accommodation must be made between this universities' entrance requirements and admissions policy, and the pattern of the curriculum and examinations in the sixth form," he said.

Dr R. F. Whelan, vice-chancellor of Liverpool University, spoke to the Commonwealth university leaders on "standards of university admission and their effects on secondary education".

Middle class make Cambridge even more their own

by Lisa Wood

Cambridge University is becoming more middle class, according to figures published this month.

The number of male students applying whose parents have manual and agricultural occupations has fallen to 13 per cent of the total number of applications for 1978, compared with 15 per cent in 1974.

The Cambridge University Reporter, which gives a 40-page breakdown of student numbers, shows that the number of children applying from "other non-manual" backgrounds has also fallen from 23 per cent of the total in 1974 to 21 per cent in 1978.

The number of applications from professional and technical occupations has risen most significantly in the last four years. In 1974 43 per cent of students applying came from this class, rising in 1978 to 46 per cent.

Of the male students accepted in 1978, 21 per cent came from homes where parents were administrators and managers, 49 per cent from professional and technical backgrounds, 19 per cent from non-manual backgrounds and 12 per cent whose parents had manual or agricultural occupations.

The socio-economic backgrounds of the 718 women students accepted this year follow a similar pattern to a smaller percentage coming from non-manual and manual and agricultural backgrounds (17 per cent and 9 per cent respectively) and slightly more (52 per cent) than male students having parents with

professional and technical occupations.

More than 48 per cent of all undergraduate students accepted for 1978/79 came from London and South East England. Wales and the North had the lowest percentage of applicants but the ratio of applications to admissions for these regions was consistent with that of other areas.

The percentage gaining entry from maintained schools is increasing. In 1978 it was 44 per cent of the total while in the years 1973-77 it averaged 41 per cent.

The number of women going up to Cambridge is continuing to rise slowly. In 1968 they made up 11.7 per cent of undergraduates and postgraduates rising in 1977-78 to 22.1 per cent, the increase being fairly similar in both undergraduate and postgraduate study.

More women applied from maintained schools than from direct grant and independent. In 1978 51 per cent of female applicants were from maintained schools, 15 per cent direct grant and 20 per cent independent. In 1973-74, 51 per cent came from maintained schools, 17 per cent direct grant and 20 per cent independent. The number of applications from women has risen from 1,568 in 1973-74 to 2,381 in 1978 with 547 and 760 acceptances respectively.

Of the total of 959 undergraduate and postgraduate students from overseas in 1977-78 the greatest percentage came from the United States, with 98 undergraduates and 133 postgraduates.

Cambridge University Reporter: Special No. 16 Vol. CVIII. Price 15p.



Kings of Cambridge

Foreign fee charging plan drawn up

by Peter David

Detailed proposals for reorganizing the financing of overseas students in Britain have been drawn up by an inter-departmental team of civil servants and university officials.

Under the scheme self-financed students from abroad will have to pay the full cost of their courses. The existing £120m subsidy for overseas students will be channelled into a government bursaries programme.

Four categories of overseas student will be eligible for bursaries. The first will take in students from the poorer developing countries. A second will allow the admission of a number of students from any country on the basis of academic merit. Students from EEC countries will form a third category, and there would be a special scheme for refugees.

The value of bursaries will vary, however. Refugees and students from the developing countries will in most cases have their maintenance costs, fees and travelling costs paid in full, subject to a means-test. Students from the EEC will have their fees paid only.

Mrs Williams, Secretary of State for Education and Science, is believed to be the moving spirit behind the proposals. She considers the existing arrangements to be haphazard and not related to the needs of individual students or their countries.

The new programme will not encroach on the independence of universities and colleges in their selection of students from abroad. Means-testing would be carried out by the administrators of the bursary scheme, but academic institutions will continue to decide whether to admit individuals.

Discussions of the new scheme have taken nearly a year because of the range of Government departments consulted. They include the DES, the Foreign and Commonwealth Office, the Ministry of Overseas Development and the Department of Trade.

Last year there were 84,000 full-time overseas students in Britain. About 38,000 were on undergraduate courses or the equivalent, for which the annual fee was £650. Another 17,000 were postgraduate students for which the fee was £850. The remainder were in further education.

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Discrimination outlives the Sex Act, report says

by Maggie Richards

Sex discrimination still prevails in all parts of the education system almost three years after the Sex Discrimination Act, according to an analysis just published.

But discrimination now occurs mainly in the form of unconscious assumptions, rather than as deliberate action, says the report from Ms Gaby Weiner, a researcher at the National Foundation for Educational Research.

At an early age girls are still being directed away from certain subjects particularly in science, and this is reflected in the numbers of women going on to higher education—only one in four university students is a woman.

Educators cannot assume that discrimination will soon disappear, the report concludes. "If change is to occur, it will be through the actions of teachers and others under the umbrella which the Sex Discrimination Act provides."

Ms Weiner says research has shown that attitudes at primary school level have formed the basis for sex preferences and self-image at higher education levels. Schools often use sex categories purely for ease of organization—for registration, quizzes and games, and seating purposes.

At secondary level separation of provision for the sexes is still based on traditional role assumptions. In the upper forms the tendency to divide subjects becomes more marked, justified by some schools on the grounds of timetabling necessity.

Evidence also reveals that more subject opportunities are available to girls in single-sex schools than in co-educational establishments—the proportion of girls taking science in single sex schools is 25 per cent more than in mixed schools.

"It would seem that the traditional assumptions on sex differentiation are a far stronger influence in mixed schools, where interests of the girls are often subordinated or

contrasted to those of the boys," the report says.

In further education between four and five times more men than women attend whole-day or part-day release courses, and industries traditionally associated with women have the poorest day release record.

Hidden bias at school level and the rejection of science by many girls affects the proportion of women attending universities. In addition only 11 per cent of university teachers are women, and in recent years the number of women employed in universities has been on the decline.

"Colleges of education, the overwhelming choice of women in higher education, are now contracting as a result of recent economic cut-backs. Jobs and opportunities in teaching, a profession dominated in numerical terms by women, are similarly at risk."

"While it is to be hoped that this will lead to a diversification of female talents to say the scientific or engineering professions, one suspects that what will happen is that fewer women will elect to go into higher education," the report says.

It is in the sphere of higher education that the Sex Discrimination Act is expected to make most impact. The Act makes it unlawful for a person to be used in the selection of entrants to educational institutions.

But the report suggests problems are likely where discrimination occurs at an interview. "As the burden of proof lies entirely with the complainant, it will be very difficult to prove, at an industrial tribunal or county court, what actually occurs at an interview."

Education and the Sex Discrimination Act by Ms Gaby Weiner, published in Educational Research Volume 20 No 3, obtainable from the NFER Publishing Company, Darville House, 2 Oxford Road East, Windsor, SL2 1DF.

More psychiatric facilities needed at universities

The need for more psychiatric facilities in higher education institutions and the improved training of student counsellors has been recommended by Dr John Payne, director and psychiatric adviser of the London School of Economic's Students Health Service.

Dr Payne, a contributor to *Students in Need* a book published this month, writes that studies have shown that between 2 and 4 per cent of students in Britain suffer severe psychiatric disorders and that between 10 and 20 per cent have minor or moderate disorders.

Universities, polytechnics and colleges, in a time of financial stringency, have tried to meet this need by setting up improved counselling services but this development has not been paralleled by more psychiatric facilities. Only three or four British universities or colleges have full-time psychiatrists and most of the remainder employ psychiatrists only on a sessional basis to provide a consultant service. This is unlike institutions in America where most colleges of a reasonable size employ a full time psychiatrist.

Dr Payne says more full-time psychiatrists should be employed in United Kingdom institutions. These could act in a consultant capacity as well as supervising the more difficult cases of the counsellor.

The difference between counsellors and psychiatrists is not clearly defined, says Dr Payne, but he sees psychotherapy as appropriate when dealing with the more disturbed cases.

Dr Payne says about counsellors: "The growth in counselling is not matched by the sufficient training of enough counsellors, and all counsellors are not in agreement about their theoretical stance or how they should be working. Diversity in background and training may provide variety and flexibility as long as that training is sufficiently focused and rigorous. The anxiety is that in some instances it is not and that counsellors with insufficient training and experience of working are being appointed."

Dr Payne says that before the 1950s academic failure was generally seen as a result of insufficient

intelligence to obtain a university degree. Lack of the necessary moral fibre required to sustain three-year courses or insufficient motivation to study a particular subject.

But Dr Nicolas Malleonn, in whom the book is dedicated, recognized in the 1950s that there was a correlation between wastage, failure and psychiatric morbidity. Life was among the first to identify examinations as being the cause of sufficient stress to diminish performance and impair examination results.

Later studies have suggested that moderate neuroticism and introversion relate positively to success but also to the likelihood of seeking help for psychological difficulty. Dr Payne says that the background to the problems of performance and their relation to psychological difficulty is complex but "one thing seems certain, that both academic failure and psychological difficulty are related to the failure to master successfully the developmental tasks of adolescence and notably the failure to achieve independence from parents and acquire a satisfactory personal identity which is not too influenced by parental attitudes and expectations."

During the last five years Dr Payne says there has been an increasing demand from the administrative and lecturing staff, and more frequently by the students, for the appointment of more counsellors. He says: "This is an important part of education where psychiatry complements and supports academic teaching. . . . While it is acknowledged that some people can achieve focus on academic tasks because of their emotional and personal reactions, it is preferable that academic brilliance (or even competence) is not nurtured in emotional cripples."

Dr Payne's essay on the place of psychiatric and counselling services in higher education is one of 17 on students in need published in memory of Dr N. Malleonn, physician-in-charge of the student health service at London University until his death in 1976.

Students in Need: Essays in Memory of Nicholas Malleonn (Society for Research into Higher Education Ltd, Surrey University, £5.50, plus 20p postage).

Oakes 'would destroy public sector'

by Peter David

The Oakes' recommendations for polytechnic and college finance would destroy the nature of public sector higher education and create a profound split between further and higher education, a report published this week claims.

The Centre for Institutional Studies, headed by Mr Tyrell Burgess at North East London Polytechnic, says in the report that the Oakes' committee suggestion for a national body to finance polytechnics and colleges should be abandoned, together with the existing regional advisory councils and the local government "pool" from which higher education costs are met.

"We believe it is for individual local authorities, in consultation with others, to decide how to collaborate in order that each local authority can fulfil its duty. Some may decide on simple recruitment arrangements. Others may form joint education committees," the report argues.

"The alternative proposed by the Oakes committee, for a new national body and re-established regional advisory councils, will actually undermine public control by removing the accountability of individual local authorities for decisions about their institutions."

If a national body is to be set up, the authors say, it should on no account be responsible for distributing resources, but become an advisory body to the Secretary of State, embracing the universities as well as the public sector.

Commenting on the assumptions underlying the Oakes recommendations, the centre says that some of them—such as the assumption that there are multitudes to be regional assemblies in England, and that there will be no big changes in local government finance—undermine the entire report.

"The working group has in this respect seriously misrepresented its terms of reference. If the group were subject to the controls of local government they would no doubt be acting *ultra vires* and personally surchargeable for the £34,000 they have evidently mispent."

Some of the Oakes recommendations are "even somewhat sinister," the centre says. One example is the representation of universities even though the universities are not subject to their decisions.

"It will thus be possible for promising developments in further education on the grounds that they are competing with established university courses."

The functions of the Secretary of State would be undermined by a sort of national body outlined by Mr Oakes, the centre adds. "It is always possible for the Secretary to deny accountability on grounds that the decisions are being taken by the protected and isolated body."

Among the administrative chores are the organization of field placements for their students, liaison with social work agencies providing placements, meeting with practice teachers from outside the academic institution, course planning and the selection of students.

"At the same time the social work teacher is denied the advantage enjoyed by most colleagues of working weeks largely limited to academic terms," says the survey.

"The average social work course fitted into an intensive two years or even more intensive one year continues substantially beyond the end of academic terms in most cases."

The council's claims are based on a questionnaire sent last year to all institutions teaching the Certificate of Qualification in Social Work. They included 45 universities and university colleges, 25 polytechnics, 18 Scottish central institutions and 8 other colleges, a total of 6,500 social work students are taught by some 600 lecturers.

Union finance, accountants oppose plans

Government plans for a new way of financing student unions are opposed by the professional body representing accountants and finance advisers throughout the public sector.

Instead the Chartered Institute of Public Finance and Accountancy says that union finance should be part of the recurring budget of the institutions concerned.

It also stresses the desirability of independently audited accounts from each union.

CIPFA, which has members among universities, finance officers and throughout the education sector, as well as elsewhere in the public sector, warned the DES plans will lead to confusion and difficult decision-making.

The DES proposes a dual system for student union fees. At the moment fees are fixed at a maximum by the institution and paid by the individual student award-winning authority.

Instead the DES proposes a fee with maximums and minimums set for different categories of student. Extra subventions would be negotiated locally according to local need.

CIPFA denounces this proposal as "unnecessarily complicated." The DES system "would lead to confused and difficult decision-making, particularly in the area of resource allocation," CIPFA says.

"Touching on the difficult area of student union autonomy, it suggests that the DES should be prevented from managing their own affairs within the guidelines of the present agreed guidelines, the DES considers the financing of the unions should form part of the current budgets of the institutions."

It feels it is "essential" to have union constitutions specifically provided for annual accounts audited by an independent qualified accountant. "The continued receipt of income from public sources should be conditional upon this requirement."

National poly body could self-destruct

The constitution of the national body proposed by the Oakes report is such that a major disagreement between its members could cause its collapse, the Chartered Institute of Public Finance and Accountancy said this week.

In a statement welcoming the creation of a national body and the new financial arrangements proposed in the Oakes report, the Institute said that the body must have a majority of local authority representatives.

Decisions on higher education finance for higher education must rest with those ultimately responsible and accountable for it, the Institute says. "The Institute's view is that the Institute can only be a local authority making the decision-making process."

Better teaching ratios in social work urged

by Peter David

Social work lecturers work harder than their colleagues in other subjects and deserve more generous staffing levels, claims a survey published this week by the Central Council for Education and Training in Social Work.

The survey shows that most social work lecturers spend some 30 hours a week on special administrative chores related to social work training, in addition to their normal teaching and research load.

Among the administrative chores are the organization of field placements for their students, liaison with social work agencies providing placements, meeting with practice teachers from outside the academic institution, course planning and the selection of students.

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Reading suggests special inquiry for the 1990s

by Maggie Richards

A special committee of inquiry should be established to review the role of higher education into the 1990s, says Reading University in its submission to the Department of Education and Science.

Recommending a more substantial degree of research into the whole subject, the university's response states: "The issues covered by the document are so complex and important that it is impossible to make a satisfactory and considered reply to the questions raised. Further and more detailed study, and background information, is essential if valid conclusions are to be reached."

Moreover, this university is strongly of the opinion that far-reaching matters of this kind should be fully discussed by a specially appointed committee to which interested bodies could submit evidence and which would have the authority to hold discussions with a wide range of institutions and individuals.

Reading voices several fears for the future. On staffing it reports: "The present situation in the age structure for university staff is leading to a serious promotion blockage, and the loss of young members who would have much to contribute, can only be put right by new appointments regardless of student numbers; and this has now become a pressing need."

It comments that "research is one of the two major activities in universities, but time for it is becoming increasingly eroded with worsening staff-student ratios and the other effects of the cutback in resources in recent years. Increased attention seems to be paid to this constraint on what must always be a major university activity."

Science forum goes on tape

A series of six half-hour science programmes on topics to be discussed at next month's annual meeting of the British Association for the Advancement of Science are to be broadcast over the next two weeks on local radio. And teaching packs, consisting of cassette recordings of the broadcasts and supplementary notes, will also be sold during the meeting, which is being held from September 1 to 4, at Bath.

The project is being backed by the Lloyd's Bank which is providing several thousand pounds in grants

The survey reveals that most social work courses operate with a ratio of between eight and 11 students for each social work tutor. The council recommends an average of 10:1 with additional help from teachers in other subjects.

"We consider it essential that educational institutions should recognize fully in the staffing of their social work courses that overseeing effective practice placements is as vital to social work training as the supervision of laboratory work for scientists and engineers, or of clinical training for medical students," the council says.

It calls on the University Grants Committee to review "urgently" its allocations for social work training in universities, which received special government funding until 1972. "The suspension of the UGC's quinquennial basis of grants to universities and the effects of inflation have left the financial position of social work courses in a condition of uncertainty, and in some cases it is not clear that past unmarked funds have in fact been fully utilized for their intended purpose."

In the case of polytechnics the council wants social work training removed from the pooling committee's Group 2 category of courses, which includes arts and social sciences, and placed with science and engineering in the more generously staffed Group 1 category.

"Furthermore, the prospects for promotion to the highest level of management compare unfavourably with those in other advanced countries."

In a supplementary submission to the evidence it gave to the Finiston committee in November, the Institution of Mechanical Engineers warns that United Kingdom industry needs engineers who not only understand the engineering aspects of their company but are also able to motivate colleagues and work force by their leadership qualities.

"We propose to initiate a study of the methods of leadership training used by companies with a reputation for success in personnel development and by the Services," says the institution.

"If such cases are not taken into account in the drafting of a scheme of registration we believe there is a danger of injustice to individuals, a loss of valuable personnel to industry and possible damage to the national economy," it adds.

On the question of registration, the process for setting the standards of qualification and rules of conduct for engineers, the council makes no strong recommendation. However, the group does state that it is concerned that registration could discriminate against scientists who happen not to be chartered engineers but who are still fully competent.

The team brought together not only teachers from 15 colleges of further education but an equal number of Post Office correspondence course writers—the Post Office involvement arose from the major changes it faced in providing correspondence courses for mature personnel. It was chaired by Professor G. Holister of the Open University and the deputy chairman was Mr J. Coffey, the educational technologist on the team, and author of the report.

Mr Coffey not only describes the pitfalls which other similar teams may encounter and therefore avoid, but also findings from testing the materials with telecommunication students in a group of colleges.

Discussing future course teams, Mr Coffey says that their recent experience clearly indicated that there were at least two elements of the utmost importance before embarking on development. A clear and complete list of skills required for a package production before selecting team members and a recognition that training in skills would become necessary.

The Science Forums, as the broadcasts will be labelled, were recorded in May with panels of scientific experts on the various topics and took place in front of academic audiences.

A total of 500 teaching packs have been made and will sell at £3 each. And it is hoped all the packs will be sold, as happened last year.



Mr Gison Manullang, from Jakarta, the 200,000th overseas student to be greeted by the British Council courier service, with Mr F. Fox of the Arrivals Section outside the Council's headquarters in Spring Gardens, London.

Institutes call for broader training for engineers

Broader education must be introduced for engineers to include not only mathematics, physics and chemistry but also subjects such as biology and physiology. In its evidence to the Finiston committee which is inquiring into Britain's manufacturing industry, the Council of Science and Technology Institutes states that this should be encouraged by extending university courses to four years.

"Short-term financial considerations should not be allowed to prejudice this highly desirable educational development," the council adds.

On the question of registration, the process for setting the standards of qualification and rules of conduct for engineers, the council makes no strong recommendation. However, the group does state that it is concerned that registration could discriminate against scientists who happen not to be chartered engineers but who are still fully competent.

"If such cases are not taken into account in the drafting of a scheme of registration we believe there is a danger of injustice to individuals, a loss of valuable personnel to industry and possible damage to the national economy," it adds.

The SRC's own synchrotron device at Daresbury is now nearing completion and its operation time is already heavily subscribed to scientists interested in investigating chemical, biological and crystalline structures. A new European machine there would help alleviate this problem and would also provide a far more powerful research tool to take advantage of technologies yet to be developed.

It is believed that other groups of scientists, who have not yet shown much interest in the potential of synchrotron radiation will join other researchers in using the device, which produces intense beams of photons over a wide range of wavelengths. A decision to build a European machine could indicate future collaborative trends which would avoid unnecessary duplication in the provision of major research centres.

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ACADEMIC DEVELOPMENTS

Mens sana in corpore sano

by Peter David

School students with a flair for sport as well as study will be able to read for a BA degree in the subject at Crews and Hager College. The Council for National Academic Awards has approved a BA degree in sports studies beginning this October.

The aim of the programme, says the college, is to provide a sound, broad education which is of intrinsic value and general relevance to students who have both an aptitude for sport and a scientific background.

Students will combine a study of "sports science" with one science discipline chosen from biology, physics or psychology. It is expected that students will develop an understanding of the various scientific variables involved in human motor performance as well as knowledge and skills pertinent to problems they may encounter in their personal, social and working lives.

The course will concentrate on

four themes: the variables influencing performance in sport; a science and its sports application in depth; scientific methods, statistics and computing; and wide practical experience in a number of sports.

The place of sport in an increasingly leisure society is also examined.

"Sports science" is studied in parallel with a science discipline, while students are also required to take part in a number of sporting activities, specializing in a single sport in their final year.

The college stipulates that as well as possessing the necessary academic qualifications applicants will have to provide evidence of sporting achievements, and undergo a test of motor ability before being admitted.

After graduating, the college says, students will have gained knowledge and skills relevant in such fields as sports equipment, sports services, social services and personnel and public relations.



Sport science may well study Osvaldo Ardiles left, and David Gower, two bright stars of 1978

Ethical problems of sex, drink and the family

Two new BA courses, one in social ethics and the other in English literature, are to start this October at St Martin's College of Higher Education, Lancaster.

The course on social ethics, said by the college, has been designed to "give students the opportunity of probing major social issues in a systematic way and of assessing them in the light of various ethical perspectives".

It will be taught by an interdisciplinary team of tutors and contacts have been established with local community agencies and related regional and national organizations.

Part one of the course will introduce moral philosophy and law and areas where ethical issues are raised—such as sexuality, use of alcohol and the family.

In part two there will be three strands: comparative ethics, case studies, and philosophical and psychological issues.

There will be close association between the social ethics course and the English literature course with the related minor subjects taken by students. Students who complete a BA degree may subsequently apply for the college's postgraduate certificate in education should they be aimed at students who intend to teach in Jewish schools.

York to establish electronics department

York University is to set up a department of electronics which will develop close relations with industry and prepare students for careers in electronic engineering. Dr G. C. Bloodworth of Southampton University's department of electronics has been appointed to the new chair at the York department which will open next year.

What about the workers is psychology course interest

The first occupationally oriented psychology master's degree to receive approval from the Council for National Academic Awards is to start in October at North East London Polytechnic.

It will be a two-year part-time course designed for people involved in occupational work such as personnel, training and careers officers. Students will be based at the faculty of human sciences in Stratford, and will be expected to attend two evenings a week.

A varied short course diet

Visits to houses of historic interest, management training courses for mining engineers and training courses for career advisors are in the varied list of short courses being held by Keele University during September.

Torbay National Trust members are to spend a week as part of their course examining National Trust properties, including state homes in Derbyshire, while 80 newly qualified mining mechanical and electrical engineers on the staff of the National Coal Board are to attend a two week course in management.

Jewish studies for would-be teachers

Permission has been given by the Council for National Academic Awards for a new education degree course in Jewish Studies. The course, the first of its kind, will be aimed at students who intend to teach in Jewish schools.

Leading to a BEd or a BEd (Hons), it is to be mounted jointly by the Jews' College and the Polytechnic of North London and will begin next month.

As their specialist subject, students will undertake a study of Jewish religious and ethical teaching, Jewish history and the Hebrew language. They will also be required to spend some time living in Israel during the holidays or before embarking on the course.

Energy MSc at Surrey

A new MSc course in energy engineering is to be launched at Surrey University this October. It is believed to be the first of its kind in Britain and is intended for day-release graduates.

Dual purpose housing start

The first CNAA-approved housing degree course in housing studies starts at Sheffield Polytechnic next month. The course is part of a new sandwich-degree programme in housing studies and urban planning.

The BA in housing studies aims to help students develop their understanding of the society in which they live and work, and to equip them for jobs with government departments, local authorities, housing associations and voluntary bodies.

Language in the classroom

Language development in the classroom is included in a new in-service course for teachers to be offered by the Open University next year.

Levels of language ability and the identification of specific language problems are two of the issues covered in the course, which will be presented for the first time in February, 1979.

How to deal with truants from school

by Lisa Wood

How to deal with truancy is one of the problems teachers will study in an in-service course at the faculty of education, University College, Cardiff, from this October.

The course, on behaviour problems and related learning difficulties, is intended to relate directly to secondary schools' needs rather than merely improve the professional competence of the teachers on it.

The students, jointly selected by their local teachers, individual local authorities and the University's education department, will be responsible for developing school based in-service training in the field of learning difficulties and behaviour problems such as truancy.

Over a period of three to four years one nominee from every secondary school in the three local authorities involved in the in-service training will have attended the course. The local authorities are South Glamorgan, Mid-Glamorgan and Gwent.

Thirty teachers have enrolled for the first year including five headmasters. The course will be part-time for two years and the educational format will have degree status. Students will attend the university for one half-day a week and one evening during the university term. An important element of the course will be a number of school-based studies which will look at the school as an institution, with its particular ethos, structure and catchment area. This study will start in the student's own school and during the course it will incorporate study at two other schools.

The Welsh Office is making a link with this course with a four-year research project which will evaluate the course and record the extent and nature of the school-based in-service training in every school and the staff response to it.

A spokesman for the University College, Cardiff, said: "As far as is known this particular approach in an area of educational concern is being tried for the first time in South Wales."

High finance to be studied in Edinburgh

by Patricia Santinelli

Scotland's financial capital, Edinburgh, is to be the setting of an MSc degree course in high finance and banking at the Heriot Watt University in October.

The one year course has been designed for those people about to enter or those seeking careers in banking, such as investment analysts, those in the financial divisions of national and international corporations, as well as the stock exchange.

Its aims are to develop students' existing skills by advanced study in finance and banking, particularly at international level. The syllabus consists of three core subjects: finance, banking and economics, with two "elective" topics including fiscal studies, international analysis, international trade and international accountancy.

Admission will generally be open to graduates with first or second class honours degrees in economics, economics or business studies and/or those with acceptable professional qualifications.

The course is to be directed by Professor John R. Small, head of the department of accountancy at finance at the university, and by Professor George Home, Professor of Finance at the Heriot Watt University. The course will be a full-time three year honours degree in finance and banking, and is concurrently deputy managing director of the Royal Bank of Scotland and the National Commercial Bank Group, Ltd.

Professor Small said: "The establishment of this master's degree course reflects a further development of financial and banking studies which recognizes the continuing expansion of world trade requires a wider knowledge and understanding of international finance to the professions, commerce and industry."

He said that Scotland had 113 well established international banks and a reputation in finance and banking. The university had built on this with its own involvement in banking and research and the development of close links with the financial and banking community.

North American News

Court rules on bargaining

from Clive Cookson

WASHINGTON Academics who play a major role in running a university are managerial personnel rather than employees, and have no right to engage in collective bargaining, a United States appeals court has ruled.

The decision has sent tremors of apprehension through the three organizations vying to unionize the nation's faculty members—the American Association of University Professors, American Federation of Teachers and National Education Association.

It may be taken to the Supreme Court, and, if it is upheld there, private universities will no longer be obliged to negotiate with faculty unions that academics elect to represent them.

The case involves Yeshiva University in New York, a Jewish institution with 210 full-time and 150 part-time faculty members. In December, 1976, the Yeshiva University Faculty Association, an independent union affiliated to none of the three national organizations, won a campus election for the right to represent them, and the National Labour Relations Board certified the exclusive bargaining agent.

However, the university refused to recognize or bargain with the faculty association, although the NLRB ordered it to. The board asked the Court of Appeals for the Second Circuit to enforce its order. The three judges who heard the case decided unanimously against the board and the faculty association, on the grounds that faculty members have substantial authority

over Yeshiva's employment practices, curriculum, admission, academic standards and tuition fees.

Therefore, the judges ruled, they effectively control the operation of the university and must be considered as managerial personnel under the National Labour Relations Act. The Act lays down labour laws for the nation's private colleges and universities but not for state institutions, which are subject to state law.

Employers cannot be forced to negotiate with representatives of managerial personnel, though they may, of course, do so if they want to. They are obliged to bargain with unions elected by a majority of "employees".

The appeals court said, in a 42-page opinion written by Judge William Mulligan, that "given the great diversity in governance, structure and delegation of power at (private) universities" it had looked solely at the procedures at Yeshiva. But, he noted, "many such institutions have apparently adopted a collegial decision-making process in which the faculty plays a decisive role in the development of institutional policy".

In fact, most "managerial" private universities have systems of governance that are broadly similar to Yeshiva's, and the decision would be applicable to them too. If the NLRB does appeal to the Supreme Court, the board is expected to make that decision next month. The eventual outcome could also affect labour relations in public higher education, because states are influenced by the decisions of the NLRB and the federal courts.

Congress approves tax credits

The controversial Tuition Tax Credit Bill has now passed successfully through both Houses of Congress. The House version, approved last week by 65 votes to 27, would allow parents to claim 50 per cent of tuition and fees for each child enrolled in college, up to a maximum of \$250 per student for 1978 and 1979/80, and \$500 from 1980/81.

He said that Scotland had 113 well established international banks and a reputation in finance and banking. The university had built on this with its own involvement in banking and research and the development of close links with the financial and banking community.

Jesuits send back \$50,000 gift from Arabs

Georgetown University has just returned an apparently unrestricted \$50,000 gift from the Government of Iraq.

Although the embarrassed university administration refuses to discuss the circumstances of the rejection, it is a good illustration of the ambivalence with which American universities regard donations from the oil-rich Middle East. Georgetown, a Jesuit university in Washington DC has, until now, been one of the biggest beneficiaries of Arab gifts.

Last year its School of Foreign Service accepted \$750,000 from Libya for its Centre for Contemporary Arab Studies. Since Libya's General Gaddafi is, in the eyes of many Americans, about the most unpopular of all foreign leaders, the donation caused quite a furore in the university.

Other Arab countries that have given \$50,000 or more to Georgetown include Jordan, Saudi Arabia, United Arab Emirates, Oman, Egypt and Qatar.

Many Americans, especially Jews, have expressed doubts about the motivation behind these contributions. They refuse to believe that national grants are purely altruistic and suspect they want to buy political influence in an academic centre located conveniently in the nation's capital.

The decision not to accept the latest offering from Iraq was made at the highest level of the university.

The AAUP and AFT filed briefs supporting the Yeshiva University Faculty Association, recognizing the implications of the case for the faculty unions that are affiliated to them and they would join the NLRB in appealing to the Supreme Court.

So far, only about 80 of the 1,600 private colleges and universities in the United States have voted for faculty unionization—none of the most prestigious research universities are unionized.

The collective bargaining movement has been more successful in the public sector, with nearly 500 state institutions organized by the three national organizations (independent bargaining units like the Yeshiva case are very rare).

The Yeshiva case is the third involving faculty unionization to reach a federal appeals court. The other two went in favour of the unions. In one the United States Court of Appeals of the First Circuit upheld a NLRB ruling that academics at Wentworth College of Technology, Massachusetts, had the right to unionize; it found that faculty members there had no significant impact on policy or management.

Earlier this year the same court enforced a NLRB order for Boston University to start bargaining with the local AAUP chapter. Here the issue was the composition of the bargaining unit—should departmental chairmen, paraprofessionals, members of the law and medical faculties be included? And not whether academics as a whole have bargaining rights. Boston University has appealed to the Supreme Court.

Carter tries to stop cuts in science spending

from our correspondent

WASHINGTON When President Carter announced his 1979 Budget plans last January, he emphasized his proposals for a big increase in Federal spending on scientific research, which he said had fallen far too low in the early 1970s.

Seven months later, with the Budget more than half way through the maze of Congressional committees that determine its final shape, it is looking extremely unlikely that basic science will receive the increase of 5 per cent on top of inflation requested by Mr Carter (THESE, January 27).

For the mood of Congress this summer has turned against government expenditure—at least partly in response to the passage of the Proposition 13 tax-cutting referendum in California.

And academic science does not have the same powerful lobby groups to protect it from cuts as other fields like defence and agriculture.

The House of Representatives has already approved a huge \$44 million cut in the administration's budget request of \$934 million for the National Science Foundation—the major source of Federal funds for university scientists. After inflation, this would leave the NSF with three or four per cent less to spend in 1979 than in the current fiscal year.

Traditionally, the House does vote to reduce the administration's NSB Budget request, though not usually as drastically as that. Then the Senate normally proposes an increase and a compromise is reached near the administration's request.

The Senate has not yet decided its spending level for the NSF, but it follows the recommendation of a key committee it too will vote for a cut this time—though a much smaller one than the house. What ever happens, the foundation, and the academics whose work depends on its grants, will get less money to spend on research next year than President Carter planned.

Beyond 1979 the outlook for the science budget is looking increasingly murky. For a start there is the growing fiscal conservatism in Congress and within the Carter administration.

In June, Bowman Carter, a senior member of President Carter's Office of Management and Budget, warned a meeting on federal research policy, sponsored by the American Association for the Advancement of Science, that the 1980 Budget will be the tightest for a decade, with cuts across the board in Government programmes.

James McIntyre, director of the OMB, has now followed up by asking Congress to cut \$5 billion from the 1979 Federal Budget—he did not specify where—and repeating the need for a "pause in Federal spending" in 1980.

At the same time Mr McIntyre and Frank Press, the President's science advisor, sent all agency and departmental heads in the administration a memorandum reminding them of Mr Carter's commitment to basic research.

"Because of the President's policy to reduce the Budget deficit, the overall agency planning ceilings developed for fiscal years 1980-82 are stringent. Despite these tight constraints we believe that it is important to re-emphasize the ad-



James McIntyre: 'pause needed'

ministration's concern for the funding of basic research", the memo said.

Mr Carter has written to members of Congress, appealing to them not to cut research programmes: "I want to emphasize that even relatively small reductions in key agencies such as the National Science Foundation, or in new initiatives and growth planned for the mission agencies, including NASA and the departments of agriculture, energy and defence, would defeat our objectives", he said.

"Modest increments of real growth in these programmes are necessary if we are to strengthen the nation's capacity and productivity in critical areas of research."

Unfortunately, not only is an anti-spending mood developing in Congress (and the country) but the NSF seems to be picking up an increasing number of influential critics.

Senator William Proxmire is well known for his "Golden Fleece of the month" award that ridicules absurd research projects. More aware of his colleagues have recently been expressing similar sentiments.

For example, Senator Orrin Hatch, a Republican from Utah, told the Senate recently: "While I realize there is disagreement regarding the scientific significance of studies such as ecological interactions between flamingos and lakes in the Andean altiplano" for \$16,500 or the "analysis and hormonal correlates in parental behaviour" in mammals for \$22,300, I think that the beleaguered American taxpayer would prefer another use for these funds."

Other Congressmen are challenging the NSF's contention that the costs of basic research have been rising even faster than the rate of inflation. They point to the fact that, according to surveys by the American Association of University Professors and the National Institute of Education, academic salaries, which account for half of all NSF grants, have been going up more slowly than consumer prices over the past five years.

National academy elects Britons

The National Academy of Sciences has elected 15 new foreign associates including five Britons: Michael Atiyah, Royal Society research professor, Mathematical Institute, Oxford University, John Cornforth, Royal Society research professor, chemistry department, Sussex University, Robert Hinde, director of medical research council unit on development and integration of behaviour, Hugh Huxley, deputy director, Medical Research Council laboratory of molecular biology, and Joseph Needham, retired Master of Caius College, Cambridge.

But retail chemists, still the main employers of pharmacists, want the bachelor's degree to remain the basic qualification, because they would have to pay new graduates more if they all had doctorates. Hospitals, which are employing an increasing proportion of the profession, are more keen on the PharmD.

More than a third of America's 72 colleges of pharmacy already offer a doctorate and more may upgrade their programmes in the years ahead. But the size of this year's vote in favour of the status quo indicates that the BS is likely to remain the basis of the profession for many years.

Six-year pharmacy degree idea rejected

Pharmacy schools are resisting the American trend toward longer and more costly professional degrees.

This year's meeting of the American Association of Colleges of Pharmacy rejected by an unexpectedly large two-to-one majority a move to make a six-year doctorate, the PharmD, the minimum degree for entering the pharmaceutical profession.

The vote means that a five-year bachelor's degree (BS) will remain the basic requirement for the state licensing exams in pharmacy.

A spokesman for the association said the margin of the rejection surprised members because a private survey of the profession produced a very close result.

During the debate, opponents of a doctorate-only profession emphasized that the change would be costly for students and colleges and, of course, enhance the prestige and pay of its members. But the association's leadership to tell them what academic programmes to run.

The profession, represented by the American Pharmaceutical Association, supports the doctorate as the minimum qualification to practise pharmacy. This would, of course, enhance the prestige and pay of its members. But the association argues that the six year of training is necessary to give phar-

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Australia

No-growth budget is 'toughest for 30 years'

from John Kirkaldy

SYDNEY
A year of no growth and cutbacks faces Australian universities and Colleges of Advanced Education (CAEs) after the announcement of the federal budget. The only exception in the post-secondary sector will be Technical and Further Education (TAFE), which has received substantial increases in expenditure.

Treasurer, Mr John Howard, announced that in the coming financial year, which started on July 1, the federal government would spend a total of \$2,497.6 million on education. This is an overall increase of 6 per cent, or \$142.8m on last year's figure but in real terms, based on December, 1977, prices, this means a drop of \$860,000.

In unadjusted terms and 1979 figures, the budget provides \$2,799.5m for universities (up 7.3 per cent), \$5,547.7m for CAEs (up 20.4 per cent) and \$1,185.1m for TAFE (up 41.4 per cent). Allowings for inflation, however, only the TAFE sector, with a rise of 19 per cent, will see any expansion in real terms.

Other highlights were: intakes into universities and CAEs will be maintained at their present levels; a tightening up of study leave arrangements as from January 1, 1979; a 2 per cent drop in real terms in capital spending for universities and CAEs; an increase of \$4.25 a week in the student allowances under the Tertiary Education Assistance Scheme; and projected cuts for the intake of pre-service teacher education courses because of the present over-supply of teachers.

One bright spot in a generally gloomy picture was the government's confirmation of the reintroduction of 'scholarship' funding in 1979-81 for recurrent grants in tertiary education.

Much of the outline of these details was expected as the government had announced its spending limits for education in its guidelines to the Tertiary Education Commission and the Schools Commission in June.

The tertiary sector now awaits the TEC report on the government guidelines, which will suggest precise allocations of expenditure. It is usual for the government to accept such recommendations.

Mr Howard said that the increase of 19 per cent in real terms for the TAFE sector underlined "the high priority" the government placed on this form of education. Base programmes for 1980-81 would be set after the forthcoming Williams Committee's report into education and training, which is now expected in October.

The treasurer said that the government awaited the final report of a TEC working party on study leave arrangements, before announcing details of the tightening-up procedures in that field.

An interim report was published in May, which invited

public comment, and has been bitterly attacked by university and CAE staff associations and the Australian Vice-Chancellors' Committee.

Adjusted to December 1977 price levels, the total allocation for universities and CAEs is down from \$1,172m to \$1,146m. Capital grants have been reduced by \$33.6m to \$52m. But allowance for current costs has risen from \$1,086.5m to \$1,094m. The TAFE sector will rise in real terms from \$97.6m to \$116.7m.

The estimates include capital expenditure of \$53.3m for the proposed Australian Maritime College at Launceston, Tasmania, out of which a training vessel will be acquired in the next year. Plans for a Defence Force Academy to be called Casey University, which was to have been built near the present Military College, Duntroon, have been deferred. Many observers believe that this decision has a very permanent look to it, and a capital allocation of \$19 million in February 1977 price levels over the next three years has received heavy criticism (THESE, August 11).

Under the new arrangements for family allowances a parent of dependent children receiving student allowances will not be eligible for family allowances after January 1, 1979. Student allowances under TEAS will go up by \$5.25 because of this.

Maximum rates for the 100,000 students receiving TEAS will be \$1,523 a year for those living at home and \$2,348 for those living away from home and for dependent students. For the 2,050 students on postgraduate awards the maximum will now be \$4,200 but this will be subject to income tax.

A total of \$28.2m will be provided in the budget for assistance to students, including \$3.2m for those studying at tertiary and technical institutions. The budget also provides \$4.5m to cover increased costs expected during the year—last year the figure was \$5.75m.

The budget, which saw wide-spread increases in both direct and indirect taxation, has been described by many commentators as Australia's toughest in 30 years. Educational groups have been vocal in condemning its provisions.

Mr Ross Holmes, general secretary of the Federation of Staff Associations of Australian Colleges of Advanced Education, said that the level of capital expenditure on universities and CAEs would cause further unemployment in the building industry.

Mr Les Wallis, general secretary of the Federation of Australian University Teachers' Associations, said that the effect of the cuts in capital would mean that not only would some essential projects now not be commenced, but that even current projects could be brought to a standstill.

The cuts to recurrent funding will mean reductions in library acquisitions, equipment, supplies and research funding, he commented.

Italy

Comic opera campus may yet be built

from Uli Schmetzer

ROME
The sleepy wine-making town of Tor Vergata in the Alban hills, chosen eight years ago as the site for Rome's second university, has made the headlines again.

This time even Prime Minister Giulio Andreotti seemed to throw his weight behind a university project so farcical it has often been compared with a comic opera plot. The Prime Minister (who has been focused growing attention on educational problems since the kidnapping in May of former Premier Aldo Moro) decided during a meeting with Rome's University rector and mayor that Tor Vergata must become a reality.

Jubilant Mayor Giulio Carlo Argan said after the meeting: "The Government has finally understood that the university can no longer be delayed".

Newspapers immediately said Signor Andreotti will ask the Senate for a Bill ordering the start of work on the new university next month.

Tor Vergata, as far back as 1966, was seen as an urgent priority to alleviate chronic overcrowding at the Rome University campus. Since then the Rome campus has doubled to 200,000 (jammed into facilities built in 1936 for an envisaged 30,000) while the vineyards still spread peacefully across the Tor Vergata site.

For years sociologists in Italy have argued that chronic overcrowding (none of the 13 new universities projected in 1974 have so far been started) is directly linked to student violence. They argue congestion has caused standards to decline, teaching to become rote learning, and the campus has become a breeding ground for radicals.

Yet once the site was chosen an unusual construction fever ensued. Within weeks edifices of considerable size sprouted on the flat hectare site, some five acres tall, equipped with telephones, electric light and other amazing amenities. The buildings were empty, the walls so thin nobody dared lean against them.

For the next three years the government fought scores of court cases against Italy's famous land speculators and their colleagues—the illegal builders—over the true value of the campus land.

The farce was finally cut short by a Parliamentary by-law passed at the end of 1972 which allotted almost £7m for the purchase of the Tor Vergata land at a fixed price.

If the Senate gives the order to build at Tor Vergata there is one major obstacle, according to Mayor Argan. "It seems," he said, "the Education Ministry thinks this new university will come from the moon. No architect that I'm aware of has been asked to submit a building plan."

No doubt the vineyards at Tor Vergata will be there for a long time yet.

Dilip Hiro continues his series on the Middle East with a look at Jordan's colleges and universities



The Jordan University: American in many ways

A chance for the lucky few

For every student at university in Jordan, there are five studying abroad, mainly in Lebanon, Syria and Egypt.

There simply are not enough places at Jordan's two universities—in Amman and Yarmouk—where standards are fairly high.

The Palestinians, who form the majority of the population, regard university education as essential. Palestinian parents would think nothing of selling their house or land to send a son to university.

The difference between the ambition and academic performance of the Palestinians and the Jordanians is so wide that, if admitted on pure merit, the Palestinians would fill almost all of the university places.

In order to redress the balance, the government gives scholarships to holders of them from the strict application of merit.

Last year, for example, the minimum grades for admission to engineering or medicine were 94 per cent. For those receiving government scholarships, the minimum was lowered to 80 per cent, which normally would have gained the applicant a place in the less desirable faculty of economics and commerce.

For sciences, the normal minimum grade requirement was 86 per cent; but for the government scholars it was reduced to 70 per cent.

This is plain discrimination—a fact that the university officials and staff try to mask. A third of the 7,018 students of Jordan University receive government scholarships.

This about equals the ratio of Jordanians proper at the campus and in the country at large.

Of course, in official terms, there is no such thing as classifying people as Jordanians and Palestinians: they are all Jordanians. Yet the top echelons of the Jordan University, as well as other national institutions, have been undergoing a process of Jordanianisation since November, 1974, when the Rabat conference of the Arab heads of state recognized the Palestinians.

A few years earlier, in the wake of a crackdown on the Palestinian commandos in Jordan, the students' union at this campus had been dissolved.

The political situation is no longer tense; but the students are still deprived of a union. The university provides them with nothing more than small, specialized departmental societies, offering social activities and periodic lectures by outside speakers. Nothing (politically) controversial can be expected to emerge from the platform of the Society of Accountancy or Geology; and nothing does.

On the other hand, despite a ban on political parties in force since 1957, the university has never seriously considered discontinuing the teaching of political science or sociology, first introduced in 1963.

In fact, according to Haidar Kamel Abu Jaber, the dean of the economics and commerce faculty (which includes the political science department), the university's courses "over" on Soviet Union and Red China, and on a "diverse" political theory and Marxism.

However, another eminent member of the university staff who teaches political theory (a political theory) is a theory problem, and he has some of those teaching to be hailed before "our government agencies and its agencies."

Even teaching sociology is suspect "because we assess sociological assessment of the social and religious institutions of the scientific approach, we are not by the religious bodies of a 'doubt' in the minds of our students," said Dr Sari J. Nasir, head of the department of sociology.

The slight of young women about their business in jeans or short skirts is not placed both in the city and at campus. Women are found in traditionally male professions, agriculture and engineering.

Women students are referred to as coeds, the American way. A Jordanian university is American in many ways. It is built like a rural American campus with wide lawns, a large central building, and a few scattered buildings.

It houses all ten faculties, including the medical and dental faculties, a research farm for 300 acres of agriculture, and a Jordan valley, some 25 miles to the north-west. Camp facilities include a supermarket, a bank and a post office.

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Treasure-houses of presidential history

American presidents leave office with a mountain of papers and records. David Walker reports on the libraries specially built to house the material

When a president of the United States leaves office, he leaves behind him, as Richard Nixon made clear, a tangible and voluminous record of his time in the White House. For the archivists who have to deal with the tapes, papers and memorabilia, it is a nightmare—and an opportunity. Their tasks are two-fold.

One is the technical and conceptual job of sorting and cataloguing yards of documents to make them ready for inspection by historians, biographers and political scientists. It is a mammoth task, but one that in the case of the Lyndon Johnson papers on deposit at the University of Texas at Austin has gone smoothly. According to Mr John O'Brien, assistant director of the LBJ Memorial Library there, his staff can offer serious researchers access to over 17 million documents of the President's era.

But the second task confronting the presidential archivists involves not only the sorting and cataloguing of the archives but more than a million documents classified under national security regulations or deemed likely to "embarrass or hurt any living person". Is it the job of the professional archivists to delete expletives, can he rely on the objectivity of, say, the State Department in reviewing its classified papers? Despite the obvious liberality of American classification compared with the British system of guarding public papers, many scholars are not happy with the restrictions imposed.

A widespread belief that the public interest was not being served led the American Political Science Association, for example, and the American Historical Association to file litigation over Richard Nixon's papers in 1974. The Supreme Court decided last June the government had statutory authority to take custody of them, though the question of whose property they are remains clouded.

While ownership of Nixon's papers is still being contested, along with the notes of conversations made by Henry Kissinger, the legacies of Gerald Ford and, still, of John F. Kennedy await the building of permanent homes. Ford's papers will be housed at the University of Michigan at Ann Arbor



Former US Presidents: Richard Nixon with the transcripts of the White House tapes (will archivists want to delete the expletives?) ; Gerald Ford and his better known connection with Michigan through football; and Lyndon Johnson.

and a new library is being built in houses Kennedy's papers at the University of Massachusetts in Boston.

Before President Johnson left office in January of 1969, however, he had agreed with the University of Texas at Austin to place his papers and memorabilia in a new library there and in the past decade archivists of the federal government have been coding and classifying the tens of millions of pieces that constitute a record not only of the Presidency 1963-69, but also of his career as Senator and Congressman.

As Johnson said, with typical bravado, when the LBJ Memorial Library was dedicated in 1971: "There is no record of a mistake, nothing critical, ugly or unpleasant about the President's life. The record is a record of a man who was a man, not a god. We have papers from my 40 years in public service in one place, for friend and foe to judge, approve or disapprove. . . . This library will show the facts, not just the joy and triumphs, but the sorrow and failures, too."

The use of the library by researchers has increased "dramatically" in the past three years, the staff reports, and sure enough the research potential of the institution is enormous. Dr Martin Ritz, archivist in the textual records section, has said there is enough material for at least three Pulitzer prize-winning studies. The definitive biography of Lyndon Johnson will utilize the family correspondence and the papers from Johnson's stay in the US House of Representatives and Senate. The library inherited the fairly well catalogued

central White House files and augmented them with the reports of presidential task forces—a favourite tool of Johnson's—the administrative histories of government agencies and the President's daily diary.

The LBJ Memorial Library would inevitably be the main source for the definitive study of US policy in Vietnam. Nearly a third of the three hundred feet of security-classified material in the library deal with Vietnam. There also remains to be written a full-scale account of the recent history of the Democratic Party—which would require a scholar peripatetic between the well-established Presidential libraries of Truman in Missouri and Franklin Roosevelt in New York as well as Boston, Austin and Washington DC.

President Johnson followed the precedent set by presidents since FDR in donating his papers to the nation subject to certain reservations. On the government's part, presidential papers are accepted under an act of 1955 provided there is a building available for them from a private source. Upkeep and archival work become the responsibility of the federal government in the shape of the National Archives and Records Service. Johnson's deed of gift stipulated that all his papers, except those classified for national security, should be made available.

The exception was papers which might embarrass or hurt any living person. The procedure can become less cumbersome. In the case of State Department documents, the permission of foreign countries has often to be sought before release. The archival community is awaiting the outcome of legislation pending

none too happy with this exclusion. Staff say they once came across a memorandum to the President from his aide Joseph Califano—now secretary of Health, Education and Welfare in the Carter Administration. The memo was very candid about a certain Congresswoman. After a Johnsonian silence after the memo was read to him, LBJ said: "Well, Edith's heard worse things than that, that doesn't trouble me. What else?"

Under an executive order signed by President Nixon a classified document between 10 and 30 years old is subject to a mandatory review process. This means, provided a scholar knows of the existence of a document, he has the statutory right to ask that it be sent back to the relevant department of government and have its classification reviewed, and appeal the judgment to an interagency review committee. If the department decides against release, the document, more than 30 years old can be declassified on the authority of the Archivist of the United States. This is not the only legal channel open to a scholar. The Freedom of Information Act can also be used in gaining access to public papers.

Mr Corkran, the assistant director of the Library at Austin, does not deny there is a backlog of requests for declassification and he hopes the procedure can become less cumbersome. In the case of State Department documents, the permission of foreign countries has often to be sought before release. The archival community is awaiting the outcome of legislation pending

in Congress on both rights of access to public documents and the future status of the papers of Presidents. American scholars are in favour of a firm ruling that Presidential records, of all kinds, are public property.

But if the LBJ Memorial Library in Austin is—albeit unwillingly—responsible for restrictions on access to information, the policy of the staff is to augment and supplement its core of Presidential papers. For example, a project started by historians at the University of Texas and now under federal funding involves interviewing those of Johnson's associates who are still alive and *compos mentis*. A team of five conducts preliminary interviews then a full-scale remembrance session with, currently, Johnson's contemporaries in the United States Senate in the 1950s. A programme of lectures and seminars brings active politicians to Austin.

In addition the library is soliciting the papers and records of Johnson's Cabinet officers and aides, and have secured 150 donors, including, for example, Professor Walt Rostow, who was national security adviser to Johnson from 1969-1968 and now teaches on the Austin campus. Mr Corkran noted that Dean Rusk, Johnson's Secretary of State, defined his personal papers very narrowly when he left office—they were his duty appointment books only. But they could be a focal source for future visitors to the Memorial Library at Austin none the less: deep in the heart of Texas there is stored a potential historians' treasurehouse.

Sweden

Loans board runs into repayment snag

from Colin Narbrough

STOCKHOLM
Sweden's central board of study grants (CSN) is unable to cope with the task of reclaiming money loaned to students. The Government has refused to finance more staff for the agency, and the board currently has 30m Crowns (£2.5m) under claim.

CSN spokesman Jan Skogström, said the board's activities were running at a very low level owing to staffing. It had been hoped that more personnel would have been available this year to pursue claims, and the board estimates that had additional staff members could have brought in 400,000 Crowns annually (£46,500) of the outstanding claims. The total to be reclaimed is

about 30m Crowns (£3.4m), and involves 3,000 people who have received study loans. But the present situation effectively means that the board cannot deal with about two-thirds of the cases. This means an annual loss on interest of about 2m Crowns (£232,000).

Mr Skogström said efforts would now be concentrated on reclaiming CSN's operations to increase the amount of repayment demands handled by computer. Request for funds for computerisation have been submitted to the Government.

Last year the CSN was allowed to compare its records with the tax department's incomes register to help avoid misuse of study loans. Earlier, CSN records had been cross-checked with the statistics bureau, but the Board of Computer Inspection opposed the link up out

of consideration for privacy. Other measures aimed at improving the efficiency of the CSN's collection system are under consideration, including increased coordination with the records from the board of universities and colleges.

Ten thousand applications for study loans are expected in Sweden this year, but only about 45 per cent of these have applied to the CSN so far. About 250,000 people repay 350m Crowns (£40m) on study loans annually to CSN.

Those refusing to pay end up in the hands of the reclamation department at CSN. Initially, they are offered alternative or new repayment schedules, but persistent failure to repay loans results in cases going to the bailiff.

A group of married women who achieved academic success NOW

Maggie Richards reviews an adult project in Newcastle

In the autumn of 1974 the Department of Adult Education at Newcastle University embarked on a project entitled *New Opportunities for Women*. The aim was to present courses which would demonstrate the educational and career opportunities available to married women wanting to return to work or improve their educational status.

Using local newspapers and radio to advertise its wares, and deliberately choosing an informal and personal style of media presentation, the department was extremely successful in attracting candidates for the NOW courses.

Entrants were admitted on an open access principle, and met one day a week for 20 weeks to take part in three sessions. The courses consisted of morning and afternoon sessions in two main disciplines: literature, together with psychology, or sociology, or politics.

The third and middle "opportunity" session was comprised of a wide range of speakers from voluntary and paid occupations from further and higher education institutions—including the Open University.

By the beginning of 1976 future development of the NOW courses was under consideration, and one of the major questions asked by the students themselves concerned access to higher education for those seeking suitable qualifications. The Open University, it was suggested, might be persuaded to accept entry from a group at Newcastle, and the response of the students was, so enthusiastic that

it was decided to proceed with the scheme.

The progress of the students through their first foundation year was monitored by three Open University staff and compared to the efforts of two other groups of students. The results of the scheme, one of a number at present being used to test the feasibility of group admissions, are set out in a report by the three staff: *New Opportunities for Women—A Group Entry Project at Newcastle upon Tyne*.

The achievements of the NOW students were to be related to the composition, qualifications and academic performance of all other women applicants taking the same foundation course in the entire northern region. At the same time, the use made by the Newcastle group of tutor-guided facilities was to be measured against the attitudes of conventional students in Durham to these services.

Approval of the scheme was gained from the university in June 1976, and students invited to apply for places in July. Initially it was intended to offer the Newcastle students the choice of entry to the university's foundation programme or the social sciences first-year course, but lack of sufficient numbers made it impossible for an alternative to be established. It was thought more practicable to embark on the social sciences course.

Eighteen of the Newcastle group finally accepted Open University places, and enrolled on a prepara-

tory course prior to admission. More than half of them had fewer than four O-levels, whereas generally among women students taking the course in the northern region 86 per cent had some form of post-secondary qualifications.

For 59 per cent of the Newcastle group, full-time education had ceased between the ages of 14 and 17. In the northern region as a whole 56 per cent of the women students had completed their education between the ages of 18 and 21.

Overall, both in terms of qualifications and the amount of education received, the Newcastle students were at a disadvantage. In addition, from a general demographic survey, it became apparent that the OU system of study, even of younger children still at home, had heavier domestic commitments than average.

The preparatory course took the form of an introduction to social sciences combined with instruction in the OU system of study. Every member of the Newcastle group attended the 15 two-hour meetings, which were completed just before the start of the university's academic year.

Students tackled study skills (reading, note-taking, essay writing); and used defunct course materials to accustom themselves to some of the disciplines, vocations and concepts they were likely to encounter in the social sciences foundation programme. Short assign-

ments were set fortnightly, and students obliged to undertake computer-marked assignments and self-assessment questions.

By the end of the preparatory series, all but two of the group were judged ready for the OU foundation course by their tutor, who was also to become their tutor-counsellor on the undergraduate programme.

During their foundation year the progress of the Newcastle students was measured against the performance of their counterparts in the rest of the region. In terms of academic achievement, their efforts were not dramatically different from the remainder of the student body. Despite their disadvantaged educational background, the group had its own.

Fourteen of the original 18 Newcastle entrants undertook the final examination. Thirteen passed—one with distinction—and the fourteenth was permitted to re-sit.

Staff monitoring the group's progress noted significant change in members of the group as their confidence increased during the year. Requests for assistance altered from basic problems with the expression of ideas to more academic queries.

The performance and reactions of the Newcastle group were also compared with the responses of the orthodox OU intake at Durham. Both groups were allotted the same tutor-counsellor, Dr Walton Hall, Milton Keynes MK7 6AA.

In Durham tutorial attendance was set fortnightly, and students obliged to undertake computer-marked assignments and self-assessment questions.

By way of contrast, attendance by members of the Newcastle group remained consistently high throughout the year. Half of the Durham group dropped out.

The report makes four major points on the variation in drop-out rates between the two: the Newcastle students felt collective as a group and had the added incentive of succeeding together; regular attendance at tutorials helps individuals to overcome problems which might otherwise cause them to drop out; the Newcastle students were acclimatised to regular attendance at tutorials by their preparatory course experience; the group were able to fix a suitable time for tutorial sessions whereas at Durham there was a firmly established timetable.

In conclusion the report finds some general advantages in group entry: in encouraging minimally qualified people to apply for OU places, students were able to enter the course highly motivated, and unhindered by having to wait for places; a strong system of support is available for students in their foundation year.

New Opportunities for Women—A Group Entry Project at Newcastle upon Tyne, by Geraldine Peacock, Susan Hurley and Jonathan Brown, published in Teaching at a Distance No 12, The Open University, Walton Hall, Milton Keynes MK7 6AA.

Scottish student clans split over union allegiances

Adorning the walls of the National Union of Students' offices in Edinburgh is a picture of an elderly man who, legend has it, entered a competition in the dim and distant past to find the bravest Scottish union, and has been searching ever since. While the joke may be less than snubbing to criticisms of the national union north of the border, it does have the ring of truth where the perennial question of devolution is concerned in student circles.

Ever since NUS decided to move into Scotland in 1971, bringing about the demise of the previous Scottish Union of Students, there has been speculation about the formation of a new independent movement. Expansion northwards has certainly not been without its problems, three of the largest institutions having decided to join Glasgow University outside the national union, and its opponents are quick to point out that only a minority of Scottish students are members even now. But, despite this apparent blot on NUS's progress towards a unified student body, the cohesion necessary to form a new union has so far been lacking.

Last year, as the national union made overtures to the rebels to return to the fold, a concerted attempt to get the Scottish Union of Students off the ground appeared likely to succeed, causing more membership headaches for NUS. At St Andrews and Edinburgh Universities support has evaporated, at least temporarily, once more.

It is tempting to equate this apparent wavering among students with the decline in fortunes of Scottish nationalism manifested in the election results. But both sides agree that, whatever else it is, the question is not primarily a nationalist one, contrary to the generally accepted analysis of casual observers outside Scotland. Indeed, those who campaigned for SUS last year's referendum believe the nationalist tag lost them support, especially among the large numbers of English students.

Instead, disaffection with NUS, where it exists, is variously blamed on straightforward political differences, the undemocratic or inefficient performance of the national union's Scottish wing, the rising cost of membership for university unions in particular, or opportunism on the part of a few ambitious student politicians. Predictions for the resolution of the present uncertain situation are equally diverse, although few people see the establishment of a new SUS as a possibility in the immediate future.

Certainly, some of the factors which added the rise of the devolution lobby applied equally in the parallel student debate. At Edinburgh University, the only union officially supporting the concept of SUS, complaints of remoteness from decision-making and London's lack of knowledge or interest in Scottish affairs led the pro-NUS faction with an uphill battle when disaffection was proposed. Although Edinburgh, like almost all the Scottish universities, was happy to join NUS when it inherited the mantle and the debts of the Scottish union, the honeymoon was short-lived.

By the time the NUS service companies had collapsed, sending cycles of discontent through individual unions on both sides of the border, sufficient ammunition was available to take Edinburgh, St Andrews and then Strathclyde out of the union. NUS Scotland was accused of being undemocratic—a Stalinist cadre—and lacking the autonomy which its officers claimed existed in practice. Together the three universities seemed capable of launching a union which could capitalize on the situation and grow.

Election procedures which allowed the Broad Left alliance of Labour, Communist and non-aligned socialist students to monopolize membership of the executive have subsequently been reformed, albeit with little practical effect on the balance of power. And the desire for autonomy has now been satisfied by a change in the NUS constitution which removes the power of veto previously held by the national executive.

But, despite confident predictions that the Strathclyde union will

rejoin after a referendum next term, hopes that the disaffiliations would be purely temporary have so far proved mistaken. NUS membership was the least popular option with students at Edinburgh and St Andrews, although voting was relatively close in both cases between SUS and complete independence.

The strongest argument the would-be founders of SUS have is the isolation which the student officers are beginning to feel in the independent unions. While the meetings of Scottish presidents provide a forum for discussing common issues, Strathclyde union has had to make a joint submission with the university authorities on the Government's union finance proposals and there are fears that Edinburgh's lone approach will carry little weight. Mr Ian Abercrombie, president of the Edinburgh student association, said: "There is no doubt we do suffer from the lack of a national voice but I was most disappointed with NUS."

But the previous Scottish union was criticized as ineffective and there is no guarantee that a new SUS would be consulted by governments or all carried out for the whole of the United Kingdom and it would continue to be the only student voice of significance. "I do not think SUS will get off the ground but, if it does, it will create problems mainly for those students who are members of unions who do not rate highly in Mr Currie's list of priorities," said Mr Martin Currie, NUS Scottish chairman.

Although he will be visiting the four universities outside NUS and taking part in the pro-nationalist campaign at Strathclyde, the breakaway unions do not rate highly in Mr Currie's list of priorities. Both Edinburgh and St Andrews are

traditionally conservative, Glasgow considered a lost cause for NUS, and he sees the wide divergence of political beliefs as a main reason for the split and to keep the sides apart for now. However, the Strathclyde union may be more significant. It is more typical of the student unions than its more conservative counterparts outside NUS and likely to be a better indicator of trends both in Scotland and the land. For, while too much may have been made of the Scottish connection, the fact that disaffiliations from both sides of the border are confined almost exclusively to university unions, which are at one of the best able to cope with national assistance and are damaging to local economies.

The cost of NUS membership last year for Edinburgh was still rising sharply for the unions—a major consideration in an inflationary climate where the student unions at a time of expansion. Where it was possible to accept that NUS would simply be deducted from the following year's budget, it was disaffiliated, some officers may believe that this is not the case and see the opportunity to boost local activities.

A proposal to leave NUS was narrowly defeated at Southwestern University last term and similar debates are expected at a handful of unions in the coming year. The prediction that university unions will suffer from the government's funding proposals may also reinforce the national union, which is seen by many as prepared to secure the interests of the universities benefit the smaller colleges. It is a relatively small income that NUS could ill afford to lose as one of its wealthier contributors.

John O'Leary



Students at Glasgow University. Three universities joined them when they broke with NUS.



Sir Alan

Cottrell

defines

relevant

education

and relevant

research*



The steersman and outrider case

There is an old story that Professor Chrystal, the mathematician, was asked by his university to teach applied mathematics. At his first lecture he said "you cannot apply mathematics until you have some mathematics to apply" and on this basis he then taught pure mathematics. That was a robust attitude to a problem which, in various forms, faces all academics. We should remember it when challenged on the relevance of university education and research. In saying this—and indeed throughout my talk—I am referring essentially to the position in Britain, for I have little experience of university elsewhere.

Of course, universities have long endured criticisms from some industrialists that their teaching is not relevant to the needs of the practical world. The cry goes up, in the jargon of the critic's particular industry, "why don't you teach your students how to make widgets?" or "train them to be good at the kind of work that is done in your industry?" Professors have stoutly adhered to the view that all-round ability and versatility rather than a specific skill is what they want to develop in their students.

Many employers understand the nature of university education and research as well as its academic and take a wise and far-sighted view. But the cry for relevance has been taken up in recent years by other sections of the community. Regrettably, one finds that some Government ministers have echoed it; so much so that the Rector of Imperial College felt obliged to say about one of them, two years ago, that "it seems that he believes that important economies would result if the number of places in each subject were geared to national requirements for trained manpower, and if there was some controlling mechanism in the schools to ensure that the university places so calculated were filled according to plan."

And so they would, except that manpower planning is a notoriously inexact science; and except that it is far more important to train people so that they can exercise their intellectual powers to the full over the whole of their lifetime than that they should instantly slot into a pre-ordained vacancy at the age of 22; and except also that the country as a whole is more likely to benefit by encouraging the talents of its youth than it is by planning what talents it requires in order to meet some utopian ideal which will all ready have been abandoned long before it is attained.

The other and more radical extension of the call for relevance came a few years ago from certain students and academics. It is not altogether clear what they meant by "relevance" for until the industrialists and politicians, they did not call for education to be directed along more utilitarian channels, or to train students more specifically for immediate employment. They seemed to want the social significance of all knowledge to be taught; that is, for every academic subject to be turned into a social science. A few even seemed to confuse education with political indoctrination.

Looking back today, it seems that this movement was, in Britain at least, a short-lived product of the academically easy times of the early 1960s. Already, by 1971, Mrs Shirley Williams was telling scientists in Britain that "the party is over"; but her

prophetic words had a wider truth than even she may have suspected, for in today's cold climate of financial stringency and high unemployment, students have mostly become less interested in the political colour of their university record than in its job-winning potentialities.

Apart from lack of money, which in a down-to-earth way is the university problem of today, I think that two developments which have set the universities their most deep-seated problems are the growth in student numbers and the growth in university research.

And this is where the first of the problems enters. For the traditional types of courses were designed primarily for dedicated and gifted scholars. In the days when less than one per cent of the population went to university, this was quite reasonable. For the child of a country vicarage, brought up with a love of books and serious studies, or the brilliant son of a coal-miner, coming out of the Welsh valleys with an entrance scholarship, the great honours schools were paradise. But such true scholars are as rare today as always.

But whereas, before the expansion in university education, these and perhaps half a dozen others made up a total sure class, today these same few receive the same kind of teaching, still designed for them, but they receive it in classes of 100 or more others. The problem then is—what about all those others? Is the traditional honours school relevant for them? They are not honours scholars, dedicated to a lifetime of learning, but simply rather bright children who have gone to university because it is fashionable to do so, or is thought to open the way to better jobs, or is a means of keeping options open about their futures.

For these children, who make up the majority of students today, the traditional honours course seems less like a guided walk through an enchanted garden of intellectual delights than a stiff cross-country chase across a rugged and remote landscape, whose main value lies in its enabling them to say afterwards, "well, I had the guts to stick it out and here is my degree to say so."

The problem of the honours schools in an age of mass education has another aspect. Honours schools are specialized. Depth, rather than breadth, is the prized quality and most university students are led to concentrate on single subjects. Departments of history give courses suitable for intending professional historians, those of botany similarly prepare professional botanists, and so on. In fact, in an unusual but justifiable use of the term, designed to train people for the profession of academics. The problem is that most students going through such courses are not temperamentally inclined to become professional scholars; nor does society want many of them.

It is, of course, a long tradition of universities to cater for a small number of non-academic students by schemes in which the student learns the scholarly side of his, or her, intended career. In the university and the professional side outside, as an assistant in a working organization. The great schools of medicine, law and engineering have been designed to train people for these professional careers. The relevance of university education is plain. The problem lies in those other faculties such as the arts, pure sciences and social sciences, which are not related to particular professions. Of course, even in them there are equivalent arrangements to enable students, through some associated pro-

fessional training, to become schoolteachers. But the facts remain that the numbers of students now entering universities are very large to be absorbed by the professions; and that the traditional honours school, with its emphasis on deep, pure scholarship, is not really suitable for most students. There is much to be said here in favour of the American system, in which the first-degree courses are of a broad and fairly elementary kind. The majority of students leave university at this point and go off into the professions, into business, into various jobs in the outside world; and only a small fraction, the true scholars, stay on to take higher degrees.

Some years ago, Professor (now Sir Brian) Pippard at Cambridge suggested an interesting scheme of this kind, as an alternative to the traditional honours school. The proposal was that all students in, for example, a faculty of science, should spend their first two years taking a degree of a generalist rather than a professional kind. Most would then go out into the world, into various professions, business, public service, as graduate apprentices. The few who aimed to become professional scholars would then stay on, to take a further two years or more intensive and specialized education leading to an advanced degree, followed by two years of research for the PhD.

This was a well thought-out scheme and developed in considerable detail. Whether two years is sufficient for a first degree is debatable and one might wish to explore alternatives, for example, a three-year first degree course of a generalist kind, followed by a one-year course of a more specialized kind for the scholars, leading to a second degree before these enter upon research. However, it has not so far been possible to give such schemes a real trial. If and when the financial strait-jacket in which universities now find themselves can be eased a little, I hope that some of them could be persuaded to use their unaccustomed freedom to try out a few such schemes.

Over the past 30 years the most rapidly growing and costly—per capita—sector of higher education in Britain has been the postgraduate one—mainly research for higher degrees. The cost of postgraduate study is now about one-quarter of total British university costs. Most of the expansion has been in the natural sciences, although there are also large research schools today in history, social sciences and other subjects.

Government policy for science in the 1950s and 1960s was simply one of casting bread upon the waters. Large funds were provided for university research and a system devised through the Research Councils and the University Grants Committee for the distribution of these funds on purely academic criteria. Applications for research grants have been decided by "judgment of peers" on the basis of "timeliness and promise". It has all been in the best traditions of the liberal idea of a university. In terms of new fundamental knowledge and understanding gained, it has also been brilliantly successful, and our view of the world has been extraordinarily enriched by modern discoveries.

But disillusionment has set in among the politicians. Perhaps they expected too much. High scholarship brought deep knowledge, but not the wisdom for solving the great problems of the day. Scientific research has been its splendid friend but not large export orders. Industry has stagnated and the economy has grown only slowly. Dissatisfaction with low growth in the

midst of high science has been the main reason for the criticisms by some politicians and industrialists that university researches are "irrelevant". Although university research could never be a major contributor to national economic growth—just as a new spark plug could never, by itself, turn an old crank into a modern car—these criticisms persist and perpetuate a view of universities as ivory towers addicted to useless studies.

However, governments by and large have not been persuaded by such criticisms. For example, clear evidence that it understood and agreed with the educational and cultural purposes of university research was given a few years ago in the government White Paper "Framework for Government Research and Development" (Cmd. 5046, 1972). This paper laid down the general policy and administrative machinery of the "customer-contractor principle" which enabled various ministries to spend government funds on relevant applied research.

The aspect of this policy of interest here was the rechanneling through these ministries of certain portions of government funds paid to the research councils. What was striking was the actual distribution of the rechanneling, which was plainly designed to leave the universities as free as possible to pursue pure research as part of their advanced educational programmes. Thus, in the case of the Science Research Council, despite its great size, no funds at all were rechannelled. That the government clearly understood what it was doing is shown by the fact that it described the purpose of its funding of such research as "to develop the sciences as such, to maintain a fundamental capacity for research, and to support higher education".

The criticisms by politicians and others of university research led to an interesting study three years ago. Professor Linnett, then vice-chancellor, investigated "Useful Research in Cambridge University". Engineering and medicine were omitted from the survey, because their usefulness is self-evident, but the report listed a number of researches, being done in the natural and social sciences, history, languages, and in various other subjects, that were judged to be immediately and evidently productive in economic and social terms.

The evidence from the arts departments was particularly interesting. It showed helping government archivists to digest public records, researchers in English dealing with problems of public communication by radio and television, orientalist producing new dictionaries and computerizing the Chinese language, and geographers studying under-development and agricultural capacity in tropical countries. As Professor Linnett said, other universities would undoubtedly have no difficulty in producing similarly impressive lists of their useful researches in all subjects.

Most university research is done to train graduate students in the methods of research, to enable academics to teach convincingly the frontiers of knowledge; and to increase knowledge and understanding as an end in itself. Any additional benefits beyond these that university research may bring to society generally, are usually by products, albeit extremely important ones in some cases. This raises several points. First, are the universities producing too many PhDs, or too many in certain subjects? This may be so in relation to the number of research jobs available in the country. As a result, many bright graduates have been forced, after taking PhDs, to abandon hopes of making careers for themselves in pure research, which has produced in some of them much disappointment and frustration at the start of their careers.

For this reason, I would prefer governmental postgraduate awards to take the form of fewer grants, rather than smaller grants. Paying more to fewer may look like elitism, but it is better than encouraging lots of the country's finest young people to enter a road that eventually leads nowhere for them. Whereas universities can perhaps be fairly criticized for irrelevantly overexpanding their research schools, the more commonly heard criticism—that their chosen research topics are irrelevant to the needs of society—is less justifiable. Quite apart from the fact that, as Professor Linnett showed, more university work is useful than is generally supposed, there is the problem of what "relevance" really is.

Usually, being "relevant" means engaging in the public problems of the day. While this must sometimes be the right policy for a university, during a great national crisis, and in fact universities generally do then apply themselves wholeheartedly to the problems of the day—nevertheless, under less turbulent conditions a university fulfils its responsibility to the community best by tackling the long-range research problems that it must be admitted that universities often invite public criticisms of their research work because they generally take little trouble to explain it in simple and interesting terms to the general public.

A country groping its way forward into the uncertain future is like a caravan train of pioneers moving across an unknown land. Not only does it need steersmen to keep it on course; it also needs outriders to go on ahead and discover possible new courses. The function of its universities is both to train the steersmen and to explore the trackless ground ahead. The first relevant education; the second is relevant research.

The author is vice-chancellor of Cambridge University.

The president speaks for the last time

When Professor Dorothy Hodgkin delivers her presidential address to the British Association annual meeting next month, her speech will mark the zenith of a close involvement with the association that has stretched over many decades. Such is her dedication to the BA that she even interrupted her honeymoon in 1937 to deliver a paper to the annual meeting in Nottingham. It was a quaint indication of things to come, for Professor Hodgkin has since become a familiar figure at these meetings, frequently attending with her three children.

It is a measure of her achievements that she has succeeded in combining a domestic role with a scientific career that has been showered with honours. In 1964 she was awarded the Nobel Prize for chemistry for her work on the X-ray crystallographic analysis of the structure of molecules—the only woman after Marie Curie and her daughter Irene to win the chemistry prize. Professor Hodgkin is also the first woman since Florence Nightingale to receive the Order of Merit. She is presently Chancellor of Bristol University and a Fellow of Somerville College, Oxford.

All this has been achieved despite the unenviable suspicion about the role of women that existed in the scientific hierarchy. "There is still prejudice against women in some circles, but not in so many now," said Professor Hodgkin, "and the fact that there are so very few women scientists in senior posts seems to me to be mainly due to history and a necessary slowness in changing our way of thinking and living."

However, there are moves which could be taken to rectify the bias against women scientists, she believes. "Having children takes considerable time off from scientific work and young women with families may have to work shorter hours, and make, for a time, slower progress than young men in the same age group. There should be practical arrangements for dealing with this. For example, part-time jobs that can turn later into full-time jobs," she added.

This problem, which affects scientific endeavour in Britain, is likely to figure prominently in Professor Hodgkin's presidential address to the Bath conference on September 4. Indeed the whole problem of wastage of human resources is one which she feels is much to blame for poor research performance in Britain.

As she points out, when one considers the numbers of scientists per 10,000 population, there are 36 in Russia, 25 in the United States, 23 in Japan, 19 in West Germany, 11 in France but only about 10 in Britain. "There are surely many more in this country who could do scientific work if they were positively encouraged to do so and would find such work enjoyable. Wartime experience showed that many un-

expected people could do skilled scientific work. If suitably trained and selected, we need to draw in more of the young and also more women."

Another bone of contention is the amount of government research and development spending which is directed towards defence.

In Britain, this sum represents nearly 43 per cent of the total R and D finance, and reaches nearly 50 per cent in the United States. "I am glad to see both proportions are now falling but they are still far above the expenditure of West Germany, at about 17 per cent, and Japan, at about 3 per cent."

World expenditure on military research and development was estimated at about \$20 billion last year—an enormous sum representing an enormous investment of scientific manpower that could and should be directed to better ends.

These and other controversial issues should become focal points for debate by the BA, she believes. A classic example of this was provided in the nineteenth century when an association meeting became the setting for the now famous confrontation between the representatives of the church and science at which Huxley successfully championed Darwin's theory of the evolution of man. While not expecting classic duels of this kind, Professor Hodgkin believes there is need for careful debate on a number of scientific issues that have vital social importance—such as pollution, atomic energy and microprocessors. The last topic has already formed the basis of a recent BA meeting which Professor Hodgkin attended.

As a scientist primarily concerned with the discovery of the structure of complex compounds, she has witnessed and exponential growth in our knowledge of these areas. This was reflected in a recent article in *Nature* on the construction of bacteria which produces proteinins. "The whole operation is an extraordinarily intricate achievement that could not have been conceived when I first began research 45 years ago."

In her work to unravel the complex structure of compounds, Professor Hodgkin and her team became adept at the flourishing science of X-ray crystallography. It was a process that led her to appreciate the extent to which pure and applied science are interconnected. "Pure scientific research often has to wait for developments in technology needed to investigate a process. In turn, these technical developments have to wait for a theoretical breakthrough."

It is the appreciation of the intricate nature of scientific research and its support which will probably form the basis of her presidential address. "There are surely many more in this country who could do scientific work if they were positively encouraged to do so and would find such work enjoyable. Wartime experience showed that many un-

Robin McKie
Science Correspondent

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Passionate pursuit of the methodologist's stone

The Methodology of Scientific Research Programmes, Volume I by Imre Lakatos

Cambridge University Press, £9.00 ISBN 0 521 21644 3

Mathematics, Science and Epistemology, Philosophical Papers, Volume II by Imre Lakatos

Cambridge University Press, £10.50 ISBN 0 521 21769 5

What makes a theory scientific? What makes one scientific theory better than another? These interesting and not unimportant questions were the primary focus of Professor Lakatos's brief but productive philosophical career.

Lakatos saw himself correcting the deficiencies in and developing the insights of the Popperian model of science in comparison with which Lakatos's own account has certain attractions. For Popper to be scientific a theory must be falsifiable. That is, it must be possible to subject the theory to an empirical test.

Given Popper's assumptions about method his anti-inductivist creates the dilemma that we can have nothing more than ungrounded hope that science progresses towards what he takes to be its goal, namely truth. Lakatos, whose admiration for Popper is tempered by frequent lively and forceful attacks on him in these papers, objects vigorously that Popper makes science a two-cornered fight between a theory and the world—a fight which the world wins every time. For as we are rightly reminded, theories are borne falsified as all theories, even the most successful, generate from the start some unsuccessful predictions. If we were to reject theories for this reason we would not have any science at all.

Lakatos, echoing Duhem, argues that our theories have a tenacity that allows us to face unsuccessful predictions with equanimity by laying the blame on something other than the theory itself. Human ingenuity being what it is, any theory can be saved from falsification and consequently we cannot with Popper delimit the scientific as the sphere in which theories are vulnerable to the outcome of a particular test. It will only do so, he says, as Popper

would that to be scientific is to be willing to specify in advance the circumstances in which one will stop being ingenious and will reject the theory. Honing the Popperian axe against Freud and Marx in this way will demolish Newton and Einstein who did not and could not have specified the particular outcomes which would have led them to abandon their theories.

Lakatos's suggestion as presented and developed in these volumes is that a fair fight requires us to play theories off against each other with the world as referee. No theory should be abandoned except in the face of a better rival theory and even then judgment should not be made until the original theory has been given the full runnings which its proponents try various modifications in the hope of improving it. Thus for Lakatos the basic unit of appraisal is not a single theory but a scientific research programme (or SRP) constituted by an evolving sequence of theories sharing a common heuristic and heuristic.

The heuristic contains the theoretical postulates that the proponents are determined to stick by in the face of difficulties and the heuristic includes among other ingredients various hints and suggestions as to how the theory might be modified. An SRP is progressive so long as it generates theories which successfully predict novel facts and it is degenerative if it gives only *post hoc* explanations of either chance discoveries or of facts anticipated by and discovered in a rival programme. (I, 112)

In spite of the spirited attempt to develop and justify this model in these papers, problems abound. For instance, we are not provided with any workable criterion for determining the heuristic and heuristic of an SRP. Nor are we told how to compare theories with regard to their ability to produce novel facts. We cannot just count these up like apples! None the less much is to be learned in these studies particularly through Lakatos's ingenious (sometimes too ingenious) attempts to interrelate the history and philosophy of science.

The model is put to various uses including a defence of the popular image of science as the very paradigm of institutionalized rationality. On this image science possesses a special methodology (for Lakatos that is SRPs) which is practically and distinctively and distinctively applied in the pursuit of truth. When the scientific community changes its allegiance from one theory to another this is to be explained by and large by the fact that the community truly perceived that the new theory was objectively better than the other in virtue of being part of a more progressive SRP.

Kuhn and Feyerabend who aim to tarnish this image argue to the contrary that such transitions cannot be rationally justified and must be explained in terms of social and psychological factors such as the force of the personality of the various theoreticians, the social climate of the times, and so on. Lakatos who scathingly dismissed them ("In Kuhn's view scientific revolution is irrational, a matter for mob psychology" I, 91) sought through historical studies to show that scientific change can be rationally justified in terms of his model.

As a move in what he saw as the struggle to the forefront of philosophy, the book is a passionate pursuit of the methodologist's stone.

irrationality his case is unfortunately more polemical than persuasive. No one including Lakatos would deny that some role needs to be accorded to social and psychological factors. However, the particular character of Lakatos's campaign means that no sympathetic attention is given to the problems of identifying and assessing the importance of these factors. And, more seriously, his single-minded concern with methodological issues prevents him from coming to grips with the more substantial aspects of the position of Kuhn and Feyerabend. For their case ultimately rests on their thesis of the incommensurability of theories according to which there is no neutral language within which objectively assessing their relative merits simply does not arise. To have dealt with this problem which is not even discussed in these volumes would have required excursions into the areas of philosophy—the theory of language and the philosophy of science.

In addition to serving in defence of the rationality of science, the methodology of SRP is intended to provide an answer to the demarcation problem. As with Popper the pseudo-scientific culprits are Freud and Marx. Marx, for instance, Marxism ever predicted a startling novel fact successfully? Never! (I, 5). Referring again to Marx and Freud we are told that "they do not add up to a genuine research programme and are, on the whole, worthless" (I, 88). So in fall to be scientific is to fail to be a Marxist or a Freudian.

The question must arise as to why Lakatos felt so passionate about distinguishing between the scientific and the pseudo-scientific. His thesis is that this distinction is of "vital social and political relevance" (I, 1) and is to be illustrated through the case of the Copernican theory which was said to be Catholic church because it was said to be pseudo-scientific. The claim is dubious as the drawing of this distinction is a later-day event. In any event there is a touching naivety about the substantial claim.

Are we to suppose that if the label "scientific" has been successfully pinned on the theory, the endorsement of the authorities would have melted away? Not a bit of it. A theory which appears to be threatening to an authority disposed to repress what it takes to be a threat will appear as threatening under one label as under another. As we well imagine the church retorting that if this is science, so much the worse for science. One is left wondering whether this enthusiasm for science and pseudo-science betokens a failure to appreciate that science is not the only form of activity governable by reason.

The methodology of SRP is not only to be used in denunciation but also to be employed in the pursuit of truth. It is to be employed in the pursuit of truth.

an action-guiding fashion with regard to contemporary science. Editors of journals are to refuse to publish papers of those working on degenerating programmes and "research foundations, too, should refuse money" (I, 117). Even if one held this non-liberal view that the degenerates should go to the wall with the pseudo-scientists, one might well wonder whether Lakatos even on his own terms—has provided a means for identifying them. For on his own admission SRPs which turn out to be spectacularly progressive may go through degenerating phases. Lakatos's response is that it is rational to work on a degenerating programme in the hope of a sudden breakthrough. But once this concession is made, the tough-minded action-guiding force of his methodology is dissipated. Hope springs eternal and even Freud and Marx can "rationally" work on hoping to become successful.

The moral to be drawn is that since this latter day philosopher's stone which is so elusive one ought to wonder whether there is any such stone to be discovered. To say this is not necessary to endorse the rationality of Lakatos and Feyerabend. In science as elsewhere there is a much wider plurality of objectively justifiable types of reasons relevant to deciding between competing beliefs and there may not be any possibility of producing a simple technique of the sort Lakatos sought for assessing the relative strengths of the reasons in any particular case.

Lakatos's contribution to methodological studies is seriously impoverished by his failure to consider in depth many of the traditional problems in the philosophy of science such as the meaning of theoretical terms, explanation, realism. We have already noted that his failure to take problems of meaning seriously means that he is unable to come to grips with the most challenging aspects of the philosophy of science. Lakatos's discussion of the Kuhn-Feyerabend position. And his discussions of truth are not adequate to the problems this concept poses for his own position.

Like Popper, Lakatos takes it that this is the best way of making progress towards the goal. He rightly objects that this is an interesting question of induction. He gives his horror of induction a good airing in his discussion of the problem. However, it is simply not any advance to "solve" this problem by simply positing a principle that his methodology does this. Lakatos's argument is not sound for the posit. Had Lakatos who is not such a hard-line anti-inductivist as Popper, given serious attention to the patterns of inductive inference and explanation actually used in science he might have been able to escape the Popperian dilemma. For in science we frequently argue inductively for a hypothesis on the grounds that it provides the best available explanation of the observed

phenomenon. No theoretical science is possible if such a pattern of inference is judged illegitimate. If, pace Popper, it is accepted, science itself is impossible. Lakatos holds that within a progressive SRP succeeding theories are better at predicting novel facts. One might then argue for the thesis that the theories in the progressive SRP are increasing in truth content on the grounds that the hypothesis provides the best explanation of the increasing predictive power. For it would be most mysterious that our theories should be increasing in predictive power if they were not capturing more and more truth about the world. On this assumption, that Lakatos's methodology adequately characterizes the practice of science this sort of argument would serve to forge the link which Lakatos seeks between the method and the goal of science. The Lakatos methodology is, however, inconsistent in its attempt to establish something of importance, namely, the self-defeating pursuit of a single-mindedness of methodological issues which Lakatos himself acknowledges. Lakatos's investigations within a rationalist tradition of thought, as Lakatos took the philosophy of science to be without the least of science (I, 102).

These volumes are richer in the emphasis I have given to the unifying concern with the methodology of SRP would indeed be a welcome addition to the Lakatos oeuvre. Lakatos develops the internal theme that contrary to what many would hold the methods of mathematics are not all that dissimilar to those of science. In the course of these papers we are given the very salutary reminder of the need for a rationalist foundation for reasoning, particularly in establishing formal representations of mathematical theories. While these thoughts on mathematics are as uninteresting they are as unimportant as Lakatos's (I, 40) in the Lakatos oeuvre.

In producing this volume Lakatos must have had to face difficult decisions. For, as they are, Lakatos would not have wished to publish some of these papers in their present form. One hopes that to some extent his reluctance stemmed from the occasional polemical tone which ill suits one so committed to the ideal of disinterested truth. The papers in these volumes do give a sense of his lively and forceful personality that made him such a stimulating lecturer. To see a whole one is struck by the passion and dedication with which he pursued the methodological stone.

In the end it is perhaps more through the manner of his pursuit than through the influence that he has rightly been accorded in his approach to his problem. For through the historical element in his approach he has performed, with Kuhn and Feyerabend, the service of directing the attention of philosophers of science to the history of science. And by entering the lists against Kuhn and Feyerabend bearing the colours of rationality, he has helped to defuse a substantial and important debate on which these often provocative papers should serve to stimulate further fruitful work.

W. H. Newton-Smith

Weathered world

Climatic Change, Agriculture and Environment by M. L. Parry

Cambridge University Press, £9.00 ISBN 0 521 01722 4

The renewal of interest in climatic change results partly from an increasing awareness of the possible economic impact of such change, accentuated at the popular level by the effects of the popular media on the grounds that the global warming brought into being by television. This book is less valid, for similar comments were being made 30 years ago when I was a student.

This book considers these interrelationships in an historical context, focusing on the climatic changes of the last 1,000 years and the effects on human agriculture and rural settlement in north-western Europe and North America. However, it is not a definitive text on this theme, but rather an interesting exploratory essay. The book looks at possible changes of climatic change and at the recent chronology. The outline of the book, so too, should have been a discussion of the influence of climate on harvest yield and famine, but this is essentially a qualitative argument, with the role of plant physiological responses barely considered. Moreover, the discussion of the impact of climatic change on the one major case study of the Lammert Hills.

This study is used in many other contexts, often because it is the only detailed inquiry available.

Stanley Gregory

although the well-documented cases of Iceland and Norway are woven into the theme of the changing limits of cultivation, while the Eastern Mediterranean, the Middle East and the great plains of North America are also occasionally included. This selection of examples reflects the author's essential thesis that the maximum impact of climatic change will have been reflected in marginal areas, where the return on farming investment is barely adequate, and where crop growth itself is also marginal. He also argues that it is the longer term changes of climate, rather than year to year fluctuations, that have the more lasting economic effects, but in his final chapter he presents a number of well-documented case studies of the results of striking short-term changes, from 1315-16 and the 1590s to the past few decades of the nineteenth century.

Throughout the volume the author discusses and emphasizes a number of basic difficulties in this field of inquiry, including the danger of circularity of argument, the climatic change possibly influencing crop growth has itself often been defined on botanical or crop evidence, and the legitimacy of inferring climate as a cause of cultural change when the technology and culture are both changing coincidentally with climate and independent evidence of cause and effect is absent. All too often, such evidence as there is seems to be conflicting, and judgement must be reserved. Moreover, throughout the whole book "much is speculation".

It is this very speculation that gives this volume its charm, its attractiveness and its undoubted value. It is the academic equivalent of a detective story or of a fairy tale.

Stanley Gregory

Geography's inadequacies

Ideology, Science and Human Geography by Derek Gregory

Cambridge University Press, £6.50 and £3.25 ISBN 0 521 33120 X and 133121 8

Today's human geographer sees people in their social environment, always in a process of change. Recent authors claim that traditional human geography made broad generalizations on limited knowledge for their study was of "man" and "environment", both of which are abstractions.

The aim now is to see people as individuals, making as far as they are able, their own environment, understood in terms of a satisfying way of life, rich in opportunities for everyone and giving liberty of choice as a matter of right. Generalizations dealing with communities, for example, are seen as too general, are only valid if they allow for the variety of individuals, many of whom will not conform to any standard ethos laid down by tradition, common consent or social pattern.

The conclusions of human geography can never finally be objective because the observer and student of others has his own conceptions of what is good, indifferent or bad. Many geographers within the past 20 years have placed implicit faith in statistical methods as the likely source of truth, and certainly the "quantitative revolution" has illuminated many human problems.

Within its range it can provide information which is sure and certain, but researchers have often found its answers unconvincing; the revelation of problems, such as deprivation in certain city areas, can only be a helpful beginning towards a solution.

Stanley Gregory

De Gregory is perhaps unduly severe on the quantifiers and model-makers, who are described as the "truly Victorian" men who pioneered the New Geography of the 1950s and 1960s, because they were dedicated to a restricting theory of knowledge as the direct experience of an immediate reality. In the effort to be realistic they were unaware of the richness of human experience. They were therefore as unconvincing as those geographers of an earlier time who saw everything in economic terms. Young geographers who turned to mathematics in hope, it appears, might be better advised to turn to psychology and even to philosophy, especially social and political philosophy.

What then can a geographer do? Should he walk the corridors of power? Gregory does not believe that salvation will be found in government work, arguing that the masters are likely to want pragmatic answers to immediate problems and that a spirit of opportunism may develop. This seems an unnecessary judgment for much of the work done by geographers in the past has been of value to central and local government, and some enterprises begun purely out of research interest, even from curiosity. However, the answer can only come when all the argument on how to achieve a stronger human geography, credible and scientifically respectable, is followed by its achievement. Regional geography, may rise again, rejuvenated and refigured, to the esteem it had 40 years ago.

Nothing, however, is certain and it is significant that Gregory is so convincing on the errors of the past than on the prospects for the future.

T. W. Freeman

no more realistic than the earlier human "ideological" geographers who began studies of man and environment with primitive peoples whose lives showed a close but never complete dependence on local resources. But with more advanced societies living in an environment moulded by generations of technological advance, the social environment must be seen to be the key to what Gregory calls the "life world".

It is easy to show the deficiencies of geographical work in the past. Indeed, on page 170 Gregory claims that he has "managed to demonstrate the inadequacies" of a traditional geography. He looks forward to a new critical approach but readers may wonder what this is, how it is to be achieved. So many possibilities appear to be open now. That many young geographers are overflowing with ideas is apparent from the number of their papers recently published, or about to appear, mentioned in the bibliography. It is surprising perhaps that Gregory looks forward to a new regional geography, based on a deeper knowledge of the lives of the people, of their ways, their aspirations, their individuality as well as their work. However, the answer can only come when all the argument on how to achieve a stronger human geography, credible and scientifically respectable, is followed by its achievement. Regional geography, may rise again, rejuvenated and refigured, to the esteem it had 40 years ago.

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T. W. Freeman

Bringing neighbourhood concerns to county hall

Policy Planning and Local Government by Robin Hambleton

Cambridge University Press, £7.95 and £4.50 ISBN 0 521 33250 9 and 133251 7

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ment officer with an impressively varied experience of the innovations of the late 1960s and early 1970s, he has made every dedicated and thoughtful use of Sidney Perry Fellowship. This year enabled him to relate his practical experience of Stockport's pioneering work in "area management" of services to studies of Boston, Dayton, New York and West Liverpool but also to the growing body of academic literature on policy making, urban deprivation, central and local government.

The book has a very clear structure with 10 chapters forming four main parts. The first of these deals with the relatively familiar ground of the relationships between central and local government in Britain, the introduction of "scientific rationality" in the forms of programme budgeting and cost-benefit planning in the 1960s and the further development in some British authorities of the "area approach".

In the early 1970s, in essence this approach includes not only an attempt to describe the analysis of social problems on a geographical

scale smaller than that of whole local authority areas but also to develop policies and programmes to study their actual outcomes on the ground. One of the aims of this is to bring more neighbourhood sensitivity to the new large local government machines with no sacrifice in efficiency and to link effectiveness with democratic accountability.

Parts two and three of the book compare British and American attempts to put these ideas into practice and although the British material is available elsewhere, the American studies will be fresh to most British readers. Part three concludes with a framework for analysing and comparing area management exercises and the book closes with an attempt to move towards theories of public learning via policy science, planning and organization theory, cybernetics and democratic theory.

The weaknesses of this very well-researched and clearly written book are fundamental. There is no serious attempt to connect public policy and its institutions with economic rea-

soning. The "national economy" is an abstraction, the increasing role of this state, national and local, in supporting and stabilizing the economy is touched on only in passing; better management systems, more "responsive" and "adaptive" local authorities (in the form perhaps of "sovereign corporations") will ease if not eliminate social distress; things will improve "when the economy permits", that is, when public expenditure cuts are restored; we should be much more conscious of the distributional effects of policy, and so on.

It would have been better for "public learning" and for the students who will find this a useful but seriously one-sided book, if Robin Hambleton had also mentioned thousands of jobs and millions of pounds worth of investment which have vanished, and are still vanishing, from Liverpool, Stockport and elsewhere, why this is so and what the effectiveness of improved procedures might be in that real context. About as much as, they might say, in Liverpool, as in a vociferous capitol.

Alan Dobbs's book on conservation and planning is a very useful combination of compilation, chronicle and criticism which brings together facts and opinions only found in disparate sources. Its avowedly modest aim is very well achieved by a clear succession of chapters on the development of the concept, its rationale, and the legislative framework followed by accounts of various groups, foreign practices, the significance of European Architectural Heritage Year (1975) and current British national and local practice. The writing is clear, sometimes witty and the book concludes with a warning that the very success of the environmental conservation movement may well be producing a backlash "from more people who claim design knowledge" but who may thereby be spurred on to produce for our age "worthy monuments of its own making".

The few poor photographs add little to a book which is a valuable addition to the limited number of serious accounts of this field.

Brian McLoughlin

Vain search for spatial processes

Models of Spatial Processes: an attempt to study of point, line and area patterns by Peter Getis and Barry Boots

Cambridge University Press, £9.75 ISBN 0 521 20993 8

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would result from perfect decision-making. On the other, statistical models were developed to assess the likely processes behind an observed pattern: the most common models assumed random processes and, as the number of potential locations for points, lines and areas on the earth's surface is very large, the Poisson process model provided the most popular exemplar.

There was considerable disillusion with these approaches by 1970: economic man was discarded as a model, and capitalism's failures destroyed notions of long-term equilibrium. Various approaches, hermeneutic philosophies, and various structuralist paradigms. The earlier interests were retained by some workers, however, and Arthur Getis and Barry Boots have produced a survey of the work built on the Poisson foundations. A large number of statistical models is reviewed in the short space of 163 pages, the authors covering nearly all of those used, and their major applications.

Reading this book revives the arguments against positivism, arguing that the early work on process models was based on one of two foundations. On the first, new theories of economic theory were used to prove location theories of point, line and area patterns. In words of economic geographers then, "the validity of the economic model or that long-term equilibrium patterns in capitalist economies are equivalent to those which

would result from perfect decision-making. On the other, statistical models were developed to assess the likely processes behind an observed pattern: the most common models assumed random processes and, as the number of potential locations for points, lines and areas on the earth's surface is very large, the Poisson process model provided the most popular exemplar.

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JOHN ROACH
£12.50

The main areas with which Professor Roach deals are those of poverty and the poor law, public health, factory legislation, education and prison and punishment. These themes are considered in terms of the innovations which were the agents of change: men and women such as Bentham, Florence Nightingale, Dr Southwood Smith, John Simon, Lord Shaftesbury, Octavia Hill and Josephine Butler.

Professor Roach is Professor of Education at the University of Sheffield.

256 pages 0 7134 1393 X

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New law

The Making of the New Poor Law: the politics of inquiry, enactment and implementation, 1832-39
by A. Brundage
Hutchinson, £8.50
ISBN 0 09 131720 6

No nineteenth-century statute exerted more long-term influence upon English social reform than the New Poor Law. A detailed study of the making of this Act is therefore to be welcomed, though this book is not an analysis of the ideological and social context of the measure. Professor Brundage's compass is narrower: that of parliament, government and the bureaucracy.

Using the correspondence of Whig ministers, Benthamite intellectuals and Poor Law officials, he explores the making of the 1834 report, the drafting and passing of the Act, the appointment of officials and the early implementation of the new system, especially in the rural south and east of England. This is an interesting story, well illustrated with fine quotations from the sources, and fleshes out a fairly familiar picture.

It is what Brundage makes of his material that promotes some doubt. Simply put, his argument is that the 1834 Report confirmed the decay in rural authority systems and hence the New Poor Law was drafted to restore landed authority. The evidence comprises the plural voting system (allowing disproportionate political weight to property), the drawing of union boundaries (conforming to estate boundaries) and the participation of ex officio county magistrates on boards of guardians (involving local leaders in day to day Poor Law administration). As a sort of parallel to D. C. Moore, Brundage posits the making of the New Poor Law as an instrument of social control.

This is an interesting line of argument but reservations of three sorts must be registered—interpretative, geographic and chronological. Of course a desire to maintain social control was one of the motives for the New Poor Law, as of all other social policy, but by no means the only one. Moreover there is a strange *post hoc* logic in Brundage's argument in which the motives of legislation are revealed in its eventual operation. It is all very well for the author to quote ministers in the later 1830s asserting that they had intended to strengthen local control and not implant centralization. Were these statements honest indications of original intent or pious lies to quieten resistant opinion? Was the discretion in operation the result of the original proposals or of the battle for local autonomy?

The geographic limitations of Brundage's thesis are that it derives too much from the southern rural unions, indeed mostly from his original Northamptonshire work. He does not appear to have been diverted by fellow county historians who told him that Northamptonshire was not even typical of rural England, let alone elsewhere. The author relies almost exclusively on Poor Law Commission papers for his local studies and in a revealing remark quotes Russell as telling the Commission that their first report was "exactly what he wished to receive". Here is the key. Parliament, ministers, commissioners all wanted to hear in the early days that the new system was becoming established. If assistant commissioners found local landowners to help in this process, they naturally deferred to their wishes. But that is hardly the same as saying that the Act was intended to help to placate the landed interest and reinforce its authority.

The chronological coverage, stopping abruptly in 1839, does not give Brundage the scope to explore what Chadwick asserted was a central question—"it is one of the principles of the 43rd of Elizabeth still binding and operative?" Five years is too short a span to judge how far the principles of 1834 were to be followed or to explain the differences between the original image and the practical reality of the New Poor Law.

We can, perhaps, tolerate the Americanized spelling (as in "labor"), though even in the United States "Kathern" is incorrect. We should not tolerate "gotten through", nor the term "grundeis" as a description of the English gentry.

Derek Fraser

Read all about it!

The Press and Society: from Caxton to Northcliffe
by G. A. Cranfield
Longman, £7.95 and £3.95
ISBN 0 582 48983 0 and 48984 9

Nietzsche once claimed that the Germans had invented the printed word, and indeed it has often been unclear as to which has been the more explosive. Professor Cranfield sets out to tell the story of the press in England, "its moments of excitement, its martyrs and heroes—and its villains," and he does so with considerable panache and enthusiasm.

The story starts with the twin birth of print and Protestantism, and ends, one might almost say, with the devouring of print by capitalism. We have here the academic account of the Civil War, including *The Royal Diurnal* which told of "that right reverend Father in Rebellion, Lust and Lies, Hue Peters... [who] tickles up the Welsh Buttocks at Milford-haven, Lovells his Petard, gives fire, and makes breaches between the Mansions of the Welsh Runt, reducing to the obedience of his Lusty Masters at Westminster sometimes half a dozen a day". We have the dazzling journalism of Defoe and Bolingbroke, Cranfield rightly drawing attention to the quality of Tory as of Radical journalism. We have the calculated nudacity of Wilkes and "Junius", who reminded George III (that as his crown "was acquired by one revolution, it may be lost by another"). We have the continuous stream of blood and sex that has drenched the reading public since

the earliest days of the press, and to which it must be said Cranfield gives a great deal of his limited space. It is an enthralling if familiar tale, and Cranfield has managed to tell it all again in only two hundred and fifty pages! Well, not all, but we can hardly cavil at that. He is predictably stronger on the earlier history, on which he has already written so well, and his span is really from the 1640s to the 1850s. Caxton appears only in the subtitle, and Northcliffe only as "Harmsworth", and not until page 217.

It is an ambitious book. Cranfield has set out to survey the history of the Press as a whole, including not only newspapers but periodicals, cheap fiction and even the theatre. Admittedly though he handles the virtually infinite material, he is forced to compress and select to such an extent that much of the information given here will only leave a faint impression on the minds of the uninitiated, for whom the book is obviously intended.

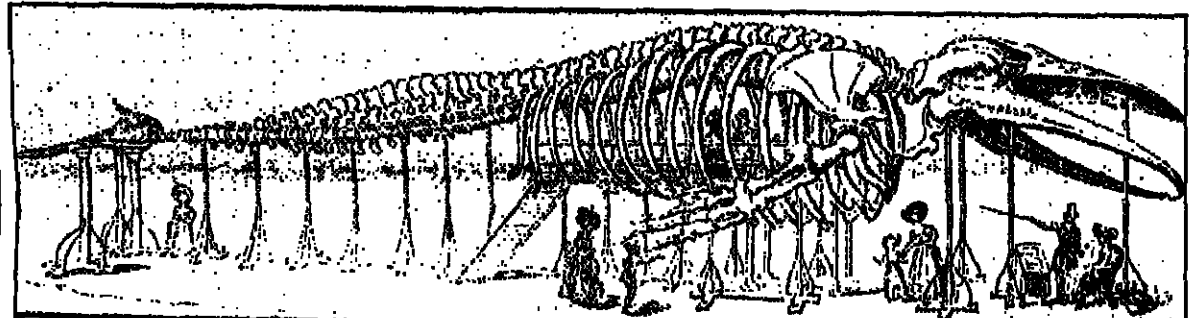
His further aim of relating the press to the development of society means in practice little more than passing notice of major social, economic and political changes. What they signify for the press, or the press for them, often remains obscure. Lists of names tend to edge out considered discussion of social questions. Readability, however, is the intention of the book, the press are all crunched upon but never purposefully discussed. There is little here on the motives of the proprietors, or the status of journalists, nor much on the changing attitude of the state towards the

press, albeit that the story of the struggle for "freedom" is one of the major themes of the book. His use of the labels "working-class" and "middle-class" is glib, and he does not examine the part the press played in the emergence of the concept and language of "class".

If, however, Cranfield's claims to have provided a brief social history are exaggerated, the book has other merits. What in fact we have is an immensely readable sampler of two centuries of the huge variety of the English press (nothing Celtic here), here is the taste of what the papers were like to read, and that is not only entertaining but instructive. Cranfield has not given us a systematic or comprehensive review of the latest research on his subject, but he certainly whets our appetites, and will surely prompt in many a longing for the wit, the imperiousness, the commitment and, not least, the language of the press that, ironically, used to flourish before "the taxes on knowledge" and harsher forms of state control were removed. His long extracts should serve to remind a country whose popular newspapers have fallen so low, just what popular journalism can and has aspired to.

The fact that Cranfield appears to consider Harmsworth to have been in the same journalistic line of "Junius" as Defoe, Cobbett and Northcliffe, should not detract from the reader from the rest of the book, particularly as it is a judgment thankfully only revealed on the last page.

Alan Lee



The whale skeleton lounge at Charing Cross from an engraving in *The Mirror of Literature* 1831, one of many illustrations from *The Shows of London* by Richard D. Atkiss, published by Harvard University Press at £19.75. For a two-shilling ticket visitors could enter the whale and relax in chairs on a platform erected inside the rib-cage while a 24-piece orchestra played.

Books for a spiritual need

Literature, Religion and Society in Wales, 1660-1730
by Geraint H. Jenkins
University of Wales Press, £9.50
ISBN 0 7083 0669 1

While the consequences of the Methodist revival have received a good deal of attention from his local studies and in a revealing remark quotes Russell as telling the Commission that their first report was "exactly what he wished to receive". Here is the key. Parliament, ministers, commissioners all wanted to hear in the early days that the new system was becoming established. If assistant commissioners found local landowners to help in this process, they naturally deferred to their wishes. But that is hardly the same as saying that the Act was intended to help to placate the landed interest and reinforce its authority.

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Derek Fraser

transformation occurred is powerfully assisted by Geraint Jenkins's new book.

Dr Jenkins's researches began as a study of Welsh books published between the Restoration and the birth of the Methodist movement, there was a vast increase in the number of books printed in Welsh, of which the overwhelming majority were devoted to religious themes. Whereas only 10 titles in Welsh were published between 1660 and 1669, 160 titles were published between 1720 and 1729. This change was brought about by the relaxation of the licensing laws in 1695, which had hitherto permitted the publication of books only in London, Oxford, or Cambridge. Publishing firms were established in Wales and the Marches, beginning with Thomas Jones's printing-office in Shrewsbury, and the Society for the Promotion of Christian Knowledge gave support to the publishing of books in Wales. The book produced, Jenkins comments, were for the most part "undistinguished in terms of literary excellence and academic attainment", but they were significant in that they "for the first time in Wales... the central doctrines of the Reformation were disseminated intensively, in print, in intelligible and popular forms".

Not only were books produced, and presumably read. Thanks to Hughes and Thomas Gough some 400 copies of Welsh Bibles were printed between 1660 and 1730, and Jenkins is impressed by the many individuals who "made a point of mentioning the Bible in their wills and... wept to some pains to

ensure that their copy was safely bequeathed". Books were "a prominent feature of even the most threadbare inventories of the less well-to-do clergy", while the collections of some dissenting ministers were quite outstandingly valuable.

All this leads Jenkins to make an important reassessment of the spiritual condition of Wales in the decades before the conversions of the Methodist pioneers Howell Harris and Daniel Rowlands. The Welsh had already developed a taste for sermons, religious verse was particularly popular, and the doctrines of the Puritans survived the Restoration to remain "embedded in the interiors of Anglican dogma". As early as 1684 Thomas Jones was arguing that Welsh was the language "that God himself spoke to Adam".

It seems that Jenkins did not set out with the intention of shedding light on the origins of Welsh Methodism, and has not traced the connexion between his researches and a sympathetic view of the state of religion in Wales in the early eighteenth century and the genesis of the Methodist movement in any way. But the conclusion to which his researches have led him, "that the Methodist revival... grew from roots laid in this period", is consistent with all that we know about the lives of the first Methodists.

When John Wesley visited Wales in 1739 he noted that the inhabitants were "ripe for the Gospel", and Jenkins's book helps us to understand how the ground had been prepared for the harvest that the Methodists were to reap.

Michael Watts

Disease

Cholera, Fever and Typhoid in Britain and the United States: the balance of needs and rights
by Phyllida Parsloe
Kegan Paul, £7.25
ISBN 0 7100 3771 1

This latest addition to the Historical Monographs series is an important one. The volume contains a history of the contents. It is not a history of medicine, but a history of public health, and a well-researched study of the formation of a medical thought in a period of many complex pressures upon the newly emerging profession.

Rapid industrialization and urbanization were the potentially hazardous conditions in the many accounts of epidemics from 1818 to 1831. However, Dr Parsloe argues that cholera was a disease more prominent than the efforts had to be made at the time by reformers to modify the reaction to its own ends.

At a time when fever and cholera were prominent concepts of the disease among early reformers like Edwin Chadwick, the choice of a "cholera" disease, which he concealed the new awareness of cholera suffered commonly by labouring poor. Although reformers did not believe in the miasmatic theory, it was to be a triumph of propaganda for the public general population. Yet Dr Parsloe was to raise the public medical theories of causation.

The author explores the development of epidemic sanitary science from the mental point of view and the scientific controversy crucial part of her argument. The reformers and propagandists who studied the environment with all the which might influence thought.

William Farr, for example, to use his own statistical data reinforced by Liebig's work shows that the high mortality was not caused by cholera. After the demise of Edwin Chadwick, John Simon needed to admit those parts of the theory which enabled his note sanitary activities to give the appearance of success. He was more maintaining the problem—"and he they that about every boil that has been in the last decade, all-embracing view of the human exertion, particularly cholera became less important to the public mind. Typographical error in the book is a pity.

In many aspects this book is against medical thought in the early Victorian period. The analyses are the greatest evidence of the processes of policy making and the ambivalence of the organization. The police formation and public health notion of process in epidemic disease.

The author's strength lies in their detailed reference to the fungo fungus theory was presented by the English medical thought has been superseded. The author argues that the public health movement of the 1840s was a symptom of a crisis in the emerging profession—a crisis which can only be seen in its context.

This book demands careful reading but the reader will be rewarded with new insights into the logical debates behind the movement of sanitary principles.

John Wood

Economy, humanity and punishment

Justice in Britain and the United States: the balance of needs and rights
by Phyllida Parsloe
Kegan Paul, £7.25
ISBN 0 7100 3771 1

This latest addition to the Historical Monographs series is an important one. The volume contains a history of the contents. It is not a history of medicine, but a history of public health, and a well-researched study of the formation of a medical thought in a period of many complex pressures upon the newly emerging profession.

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Malcolm Ruel

the gestation and implementation of the notorious Children and Young Persons Act of 1939. This Act, which pushed English policy firmly in a social welfare direction, was the end-product of a decade of debate which included considerable party political disagreement, and major inter-professional rivalries. Unimplemented when Labour lost power in 1970, it was promptly consigned to implement certain key sections. By the time Labour regained power in 1974, the climate of opinion had changed: Labour's eventual response has been to amend the statute partially away from the social welfare ideology, rather than to implement the unimplemented sections. But strong controversy about the Act remains.

Meanwhile, north of the Border, subtly different developments took place. The Social Work (Scotland) Act of 1968 was also cast in the social welfare mould, and indeed is usually regarded as a more radical expression of that ideology than the English Act, since it abolished juvenile courts and substituted non-judicial "Children's Hearings". But the Scottish Act was passed with much less controversy than the English, and has been less criticized since, although it has been in full operation since 1971. This allows some English social workers to point to it as a model of success.

But recent years have also seen a renaissance of interest in "children's rights", and from such a perspective many of the assumptions of the social welfare approach appear very doubtful. This kind of view has been especially emphasized in the United States, where the 1960s saw a considerable revolt against the often arbitrary powers exercised by juvenile courts based on unsubstantiated claims for "treatment". Hence there has been something of a return across the Atlantic to a more legalistic approach, based on due process of law and equality of justice.

For the analyst of social policy, these contrasting recent developments in England, Scotland and the United States are a most complex, field of study. And, after

a slow start, British academics are beginning to tackle the various issues involved. Of the works here reviewed, that by Priestley *et al* contains a short empirical study of the working of the English Act, with suggestions for restructuring; Morris and McIsaac offer a sustained critique of the social welfare model, built around empirical evidence of the working of the Scottish Act; and Phyllida Parsloe, in the longest of the volumes, provides a good, well-written account of all three systems.

Parsloe's book, precisely because of its general character, seems at first sight the one to offer to students; and it certainly contains much useful basic information. Yet it is curious, disappointing in many ways. This is partly because of its structure. Historical chapters of no great originality are followed by rather formal statements of current statutes and rules. There is then a sudden shift from law to "the people who were in the system", and a series of short, low-level discussions of police, lawyers, social workers and so on. We thus never get a real feel of, or evidence about, the three contemporary systems as a rounded whole, each in its specific social context.

Parsloe is oddly hampered, too, by her own conceptual apparatus. She defines three main "sets of ideas" about juvenile justice, which she calls respectively the "welfare", "criminal justice" and "community" approaches. The first two of these form the staple of most discussions on juvenile justice; but Parsloe confuses the issue by including within "criminal justice" not only the standard classicist due process/equal justice maxims, but also a set of overly punitive aims with which the classicist maxims do not necessarily coexist—as Becerra long ago demonstrated. Moreover, the "community approach", as she defines it, is a strange and rather half-baked mixture of various theoretical traditions, in so far as the book is a critical argument, it is that there must be a recognition and balancing of the competing

demands of the three main approaches outlined, but this requires considerable specificity which is not provided, about exactly where the competing demands are to be accommodated within any given juvenile justice system. No one could complain that Priestley *et al* are unspecific in their conclusions. Abolish juvenile courts; deal with older juveniles in the adult courts; for younger offenders, if a caution is not enough, then either refer them to the family court if they show signs of family neglect, or, if not, have a new kind of "public protection proceedings" in the Crown Court. The basis of these proposals is the observation, from empirical evidence, first, that younger children get more cautions than older ones; and second, that courts give more "punitive" penalties to older offenders, and "helpful" ones to youngsters. The belief is, therefore, that a purely welfare approach can be more easily tailored for the very young.

But can it? Those proposed "public protection orders" do not sound much like welfare; nor, I fancy, would most juvenile court decisions be much impressed by the distinction between "helpful" and "punishing" sentences, whereby a light fine is classed as punitive and a residential care order as "helpful". The tension between "welfare" and "justice" cannot be swept away easily, as these authors suppose. Nor, it must be said, does their empirical analysis cast anything like as much light on the working of the Children and Young Persons Act as one might have hoped for; it is indeed a sad commentary on other English academics that this slight volume contains the most extensive empirical information available on this controversial statute.

The new Scottish system has been much more extensively researched, as a recent Scottish Office review admirably showed. Now Morris and McIsaac add to this with a careful study. Unlike Parsloe and Priestley, they take the recent criticisms of the book very seriously, but at the empirical level ("we cannot assume that treatment works or may

work sometime in the future; currently it does not"), and at the theoretical level. And they show quite clearly from their Scottish material that that system is not, in practice, operating on a pure welfare model—assumptions as to levels of culpability, equal justice, and so on, continue to pervade the system, and talk of children's "needs" frequently means, in reality, the need for social conformity. This could, in part at least, be ironed out by changes in the system towards a pure welfare system, but the authors are at pains to argue that if this were done the lives of children would be interfered with to a greater extent. A new approach, moving away from talk of welfare and towards the expenditure Committee's recent trilogy of "economy, humanity, and punishment", is therefore proposed.

Criticism can be made of this study. One of its central assumptions, that courts and non-judicial panels are essentially the same, is probably correct from the child's perspective, but is obviously not so from that of many workers in the system, and thus is of much greater symbolic relevance than the authors allow. But when this and all else has been said, in criticism, it remains the case that this volume makes the debate to a far more sophisticated level than do Parsloe and Priestley *et al*.

But the thrust towards "punishment" is a pity, as the unruly trilogy does leave the door open to those Conservative demands for tougher penalties. It will therefore be particularly important to emphasize the competing goal of "economy", and the lack of empirical evidence for the efficacy of detention centres in the days when their years "tough". Classicism and punitiveness must be sharply distinguished.

Youth Crime and Juvenile Justice is a collection of papers presented at the 1975 meeting of the American Society of Criminology. It seems likely to have the deservedly short and unimpaired life of most such collections.

A. E. Bottoms

Bashing mugging

Edward Heath, Mury Whitehouse, Kenneth Powell, the National Front, and law and order
by Stuart Hall, Chris Cletcher, Tony Stone, John Clarke, Brian Jackson, £12.50 and £4.95
ISBN 0 331 22060 9 and 22061 7

Authors of this collective work give criticism. This is hardly surprising. The book is a collection of essays by British social scientists, and it is hardly surprising that they tackle mugging. The book is a collection of essays by British social scientists, and it is hardly surprising that they tackle mugging. The book is a collection of essays by British social scientists, and it is hardly surprising that they tackle mugging.

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John Wood

Medium with a message

The Korsten Basketmakers: a study of the Masowe Apostles, an indigenous African religious movement
by Clive M. Dillon-Malone
Manchester University Press, £7.50
ISBN 0 7190 1042 X

Johane Masowe, "John of the Wilderness" was a prophet who emerged in 1922 amongst the Shona of Southern Rhodesia with a divinely-given vocation to preach to the people.

There had been another prophet earlier that year, John Maranke, and the biblical type that lay behind each man's calling, that of John the Baptist, was shared by many of the Shona. Africa's first prophet, as Bengt Sundkler has shown, the Apostles of Johane Masowe exist then as an independent church alongside innumerable other comparable churches that have sprung up amid the missionary and colonial experience in Africa this century. What is it that especially characterizes Johane Masowe and his following?

Father Dillon-Malone's admirably clear and factual account goes far to provide the answer. First, Masowe's conception of his role as John the Baptist would seem to have been far-reaching. It was underpinned by Shona beliefs in spirit-possession, whereby the spirits of ancestors or long dead heroes inhabit living persons who become then the medium for their prophetic utterances. John, Masowe was preacher and baptizer; the latter role especially he retained to himself until eventually the growth and geographical spread of his following made it no longer possible for him to do so. Second, the message of moral reform was bare in the extreme; centrally it was to abjure witchcraft and all its manifestations. This need not be seen (as Dillon-Malone tends to see it) as an attack on traditional Shona beliefs, but rather as the use of that idiom to achieve moral reform people were to abjure evil. Third, Masowe was

seen as the messenger of God to Africa; he was to Africans as Jesus is to Europeans. The Apostles of Johane Masowe cannot then be said (as Simon Kimbangu's certainly can) to form a Christian church: they are the Church of Masowe.

All these features relate to the most salient characteristics of the movement, the social sufficiency, independence, their creation of communities of their own kind, bounded against the world. The nickname, the Korsten Basketmakers, is a reflection of this, deriving from the time they spent in a storm cloud of rain, the Shona employed in the Apostles' independence. The name faces both ways: to the Apostles it recalls the security and well-being of that former community, but to others it denotes their distinctiveness as a group, a distinctiveness maintained in many ways.

Dillon-Malone's study is a very serviceable one. The emphasis is sociological: history, central beliefs, religious ritual, organizational structure. There are some extremely valuable early statements and texts reprinted. Sympathetic and a dispassionate account is very different in tone and insight from Julius-Rose's recent book on her experiences among the companion John Maranke Apostles.

The most frustrating part of the present book derives from what it shows so clearly: the bounded, encapsulated nature of the Apostles' communities. What is the social structure of these groups? How are the statuses of formal leadership accorded and exercised? What part is played by non-Shona and how do they relate to the Shona core? Something is said in answer to these questions but much more is needed really to understand the movement.

The "message" of this African John of the Wilderness relates very closely and at more than one level to his own role as medium.

Malcolm Ruel

Reviewers

A. E. Bottoms is professor of Criminology at Sheffield University and author of *Defendants in the Criminal Process*.
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Dr W. H. Newton-Smith is senior tutor, Balliol College, Oxford.
Maurice Punch teaches sociology at the Netherlands School of Business.
Dr Malcolm Ruel is a fellow at Clare College, Cambridge.

F. Graham Smith is director of the Royal Greenwich Observatory.
Dr Michael Watts's book *The Discontents* (volume 1) was published earlier this year.

John Woodward is author of *To Do the Sick No Harm: a study of the British Voluntary Hospital System to 1875*.

FASCISM

Coming September
Fascism in Britain, A Complete Annotated Bibliography
Philip Rees,
£12.50

HARVESTER PRESS

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The Papua New Guinea University of Technology Appointment of Vice-Chancellor

The Council of the University invites applications from suitably qualified persons for the post of Vice-Chancellor of the Papua New Guinea University of Technology.

The Vice-Chancellor is the Chief Academic and Administrative Officer of the University. The salary is Public Service Commission level 4, at K9,785 p.a. Overseas allowances will be payable wherever applicable. The appointment will be initially for a period of three years.

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Candidates should be able to demonstrate an understanding of, and sympathy for, the development of Papua New Guinea for National development and a determination to see that the University's objectives reflect those National aspirations. Proven capacity for efficient management, and for providing leadership in a multi-cultural environment will be looked for, together with a reputation for fairness in dealings with staff, students and colleagues, and good personal relations with tertiary administrative and academic experience in a developing country and a personal life style in keeping with National ways of life. It would be an advantage if the holder of the post were married with experience and willingness to entertain staff and official visitors.

Applications should include particulars of age, marital status, qualifications, experience, present position, availability and the names and addresses of three referees from whom confidential enquiries may be made.

Further information may be obtained on application to the Registrar of the University. The closing date for the receipt of applications is 22nd September, 1978, and these should be addressed to: I. Irving Gass, Registrar, Papua New Guinea University of Technology, P.O. Box 703, Lae, Papua New Guinea.

The University reserves the right to make an appointment by invitation at any stage.

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Closing date 8th September, 1978.

TECHNICAL PERSONNEL REQUIRED FOR ENGINEERING OFFICE YARMOUK UNIVERSITY, JORDAN

The Engineering Office at Yarmouk University is in need for the services of the following Technical Personnel.

Architect: University graduate plus 10 years of experience in Architectural design of Large Educational Projects, mainly Facilities of Engineering and/or Medical Sciences. Two required. Nov. 1978.

Structural Engineer: University graduate plus 10 years of experience in Structural design of Large Educational or Similar Projects, R.C. Structures, Precast and Prestressed concrete elements. One required. Nov. 1978.

Mechanical Engineer: University graduate plus 5 years of experience in Central Air Conditioning and Heating Design, Water and Sewage Schemes. One required Jan. 1979.

Electrical Engineer: University graduate plus 5 years of experience in Electrical Power Stations, External and Internal Electrical Installations Design. One required Jan. 1979.

Medical Equipment Specialist: Adequate experience in Medical Equipment (Requirements and Technical Specification) for Medical Schools and Hospitals. One required March 1979.

Engineering Equipment Specialist: Adequate experience in Engineering Workshops and Laboratory Equipment (Requirements and Technical Specification) for Faculty of Engineering. One required March 1979.

Applications may be submitted, not later than 30 September, 1978, to the following address:

Yarmouk University, Engineering Office

P.O. Box 20184, Amman, Jordan

The following documents should be attached with the application:

One copy of the applicant's curriculum vitae.

One photo of the applicant.

One copy of the educational and experience certificates.

Salary and benefits will be determined on the basis of qualifications and experience.

Working Language is Arabic or English.

COLAISTE NA HOLLSCOILE CORCAIGH UNIVERSITY COLLEGE, CORK

ASSISTANT CAREERS & APPOINTMENTS OFFICER

Applications are invited from university graduates and other professionally qualified persons for the above newly created post.

The Dean of Student Affairs has responsibility for the Careers & Appointments Office which provides an advisory service for a student population of approximately 4,500.

EXPERIENCE: Previous experience of and training in careers advisory work is desirable. The successful candidate will have the necessary experience and maturity to deal with employers, university teaching staff and graduate and post-graduate students, and will probably have experience in fields which employ graduates in considerable numbers.

SALARY: £4,747 to £5,853. A candidate with acceptable experience may commence at a point above the minimum.

PENSION: The personal pension is non-contributory. Male staff contribute 1.1% for the Widows' and Children's pension scheme.

Application form and further details of the post are available.

Please send postcard to: Establishment Officer, University College, CORK.

Closing date for completed applications: Friday, 22 September, 1978.

UNIVERSITY COLLEGE, GALWAY, IRELAND

PROFESSORSHIP OF SPANISH

The Governing Body of the College proposes to advertise the filling of the above Professorship shortly, for an appointment to be made early in 1979. Persons who may be interested in applying for the post in due course are invited to write for details of the Conditions and other aspects of the appointment in advance of the formal advertisement. Enquiries should be addressed to: The Registrar, University College, Galway, Ireland.

UNIVERSITY OF NEW ENGLAND Armidale, New South Wales Professor of Psychology

The University wishes to fill the Chair of Psychology which will fall vacant on the retirement of Professor E. H. Barratt in December, 1978. The appointee will be Head of the Department for five years in the first instance. The Department is responsible for teaching in the field of Arts and Sciences. It offers courses in the main areas of psychology to external as well as internal students, both undergraduate and postgraduate levels.

Applicants should be of high academic standing, published extensively in their field, and have a special interest in promoting the research activities of the Department.

Conditions of Service include assistance with travel, removal expenses and assistance to buy or build a house. Superannuation will be on the FSSU pattern, but rate of the N.S.W. Superannuation Scheme may be used if the appointee so wishes. Study leave is available on credit may be given for existing entitlements.

SALARY: \$43,170 p.a.

Further particulars and application forms may be obtained from the Association of Commonwealth Universities (Appis.), 36 Gordon Square, London WC1H 0PF or to Professor Barratt, Head of the Department of Psychology, in the University.

Closing date for applications: 7 November, 1978.

UNIVERSITY OF NEW ENGLAND Armidale, New South Wales TEMPORARY LECTURESHP

Three Year Appointment in Agricultural Economics

Applications are invited for the above mentioned position in the Department of Agricultural Economics and Business Management. Preference will be given to applicants with expertise in agricultural marketing, price analysis. Applicants will be expected to teach at all undergraduate levels and to supervise postgraduate students. They should have a higher degree or equivalent research experience.

Salary will be within the range of \$41,570-\$44,000 per annum. Commencing salary according to qualifications and experience. Conditions of Service include assistance with travel and removal expenses and temporary accommodation.

Informal enquiries should be made to Professor D. J. Dillan, in the University.

Further information is available from the Staff Office, University of New England, Armidale, New South Wales 2351, or from the Association of Commonwealth Universities (Appis.), 36 Gordon Square, London WC1H 0PF.

Applications should include a full curriculum vitae and the names and addresses of three referees.

CLOSING DATE: 15 September 1978.

Applicants in the United Kingdom, Europe and Australia should forward their applications to the Association of Commonwealth Universities, and send a copy to the Staff Office. Other applicants should forward their applications to the Staff Office, without delay.

HONG KONG

LECTURER IN THE DEPARTMENT OF EDUCATION

Applications are invited for a post in the Department of Education. The successful candidate will be responsible for the supervision of teachers and the development of the curriculum. The post is a full-time position with a salary scale of HK\$25,000 to HK\$45,000 per annum. The successful candidate should have a degree in Education or a related field, and at least five years' experience in teaching or in a related field. The successful candidate should be able to speak and write in English and Chinese. The successful candidate should be able to work independently and to take initiative. The successful candidate should be able to work with others in a team. The successful candidate should be able to work under pressure. The successful candidate should be able to work in a dynamic environment. The successful candidate should be able to work in a multicultural environment. The successful candidate should be able to work in a fast-paced environment. The successful candidate should be able to work in a challenging environment. The successful candidate should be able to work in a demanding environment. The successful candidate should be able to work in a stimulating environment. The successful candidate should be able to work in a motivating environment. The successful candidate should be able to work in a rewarding environment. The successful candidate should be able to work in a fulfilling environment. The successful candidate should be able to work in a satisfying environment. The successful candidate should be able to work in a meaningful environment. The successful candidate should be able to work in a purposeful environment. The successful candidate should be able to work in a significant environment. The successful candidate should be able to work in a valuable environment. The successful candidate should be able to work in a useful environment. The successful candidate should be able to work in a productive environment. The successful candidate should be able to work in a creative environment. The successful candidate should be able to work in an innovative environment. The successful candidate should be able to work in a dynamic environment. The successful candidate should be able to work in a fast-paced environment. The successful candidate should be able to work in a challenging environment. The successful candidate should be able to work in a demanding environment. The successful candidate should be able to work in a stimulating environment. The successful candidate should be able to work in a motivating environment. The successful candidate should be able to work in a rewarding environment. The successful candidate should be able to work in a fulfilling environment. The successful candidate should be able to work in a satisfying environment. The successful candidate should be able to work in a meaningful environment. The successful candidate should be able to work in a purposeful environment. The successful candidate should be able to work in a significant environment. The successful candidate should be able to work in a valuable environment. The successful candidate should be able to work in a useful environment. The successful candidate should be able to work in a productive environment. The successful candidate should be able to work in a creative environment. The successful candidate should be able to work in an innovative environment.

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Closing date for applications: 15 September 1978.

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Universities continued

CANBERRA COLLEGE OF ADVANCED EDUCATION Australia SCHOOL OF TEACHER EDUCATION

Lecturer in Early Childhood Education

Ref. No. 78/2008

As appointment will be made for a period of two years or Grade 2 or Grade 3.

Applicants should be well qualified to conduct courses in Early Childhood Education in a school or college.

Particular strength in the following areas: (1) language arts and reading; (2) mathematics; (3) social studies and social sciences; and (4) the creative arts, as required.

Applicants will be given preference on the basis of their research or an individual or research team with whom they may wish to work.

Applicants should be of high academic standing, published extensively in their field, and have a special interest in promoting the research activities of the Department.

Conditions of Service include assistance with travel, removal expenses and assistance to buy or build a house. Superannuation will be on the FSSU pattern, but rate of the N.S.W. Superannuation Scheme may be used if the appointee so wishes. Study leave is available on credit may be given for existing entitlements.

SALARY: \$43,170 p.a.

Further particulars and application forms may be obtained from the Association of Commonwealth Universities (Appis.), 36 Gordon Square, London WC1H 0PF or to Professor Barratt, Head of the Department of Psychology, in the University.

Closing date for applications: 7 November, 1978.

Applicants should send their applications to the Registrar, University of New England, Armidale, New South Wales 2351, or to the Association of Commonwealth Universities (Appis.), 36 Gordon Square, London WC1H 0PF.

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LA TROBE UNIVERSITY Melbourne

Research Fellowships

Applications are invited for the two Fellowships (one Arts and one Science) which will be offered to be taken up early in 1979.

Eligibility: University graduates with a second degree (Honours or one Science) which will be offered to be taken up early in 1979.

Duration: One year, normally renewable for a second year maximum.

Salary: The starting salary of a Research Fellow will be \$15,170 p.a. The income tax will be waived.

Responsibilities: Full-time research and teaching duties. The Fellow will be expected to contribute to the use of the university's resources.

Further information: Before submitting an application, prospective applicants are advised to communicate with the Professor of the discipline concerned with their research or an individual or research team with whom they may wish to work.

Applicants should be of high academic standing, published extensively in their field, and have a special interest in promoting the research activities of the Department.

Conditions of Service include assistance with travel, removal expenses and assistance to buy or build a house. Superannuation will be on the FSSU pattern, but rate of the N.S.W. Superannuation Scheme may be used if the appointee so wishes. Study leave is available on credit may be given for existing entitlements.

SALARY: \$43,170 p.a.

Further particulars and application forms may be obtained from the Association of Commonwealth Universities (Appis.), 36 Gordon Square, London WC1H 0PF or to Professor Barratt, Head of the Department of Psychology, in the University.

Closing date for applications: 7 November, 1978.

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Universities continued

BELFAST
The Queen's University
LECTURES IN
MEDIEVAL HISTORY

A lecture in medieval history within the Department of Modern History, will be given on October 1978, or such other date as may be arranged. The person appointed will teach the history of medieval Europe, including England and Ireland, with special responsibility for the early part of the period. Research qualifications in Anglo-Saxon and/or early Irish history will be preferred. Initial salary will be £3,000 per annum, plus pension and other benefits. The appointment will be subject to a period of probation of up to three years in duration. Further particulars may be obtained from the Personnel Officer, The Queen's University of Belfast, BT7 1NN, Northern Ireland. Closing date: 18 September 1978. (Please quote Ref. 78/THS).

University of Wales
Research
Assistant

Applications are invited for the post of Research Assistant in the Department of Chemical Engineering, to work on a project studying the behaviour of flexible fibres in suspension, with particular reference to paper making. The project will be carried out under the supervision of a senior lecturer. The successful candidate will be encouraged to pursue a Ph.D. The appointment, which will be for two years from 1st October, 1978, is on a scale of up to £3,500 per annum, plus pension and other benefits. Further particulars and application forms may be obtained from the Personnel Officer, University College of Swansea, Singleton Park, Swansea SA2 8PP, to whom they should be returned by Monday, 10 September, 1978.

ULSTER
The New University School
of Biological and
Environmental Studies
LECTURES IN
PSYCHOLOGY

Applications are invited for two lectureships in Psychology, available from 1st January, 1979. Applicants for one of the posts should have an interest in industrial or social psychology; for the other post no particular specialisation is required. Salary scale: £3,883-£7,754 per annum (with FRSU/US\$). Further particulars may be obtained from the Registrar, The New University of Ulster, Coleraine, Northern Ireland BT52 1SA, (quoting Ref. 78/100), to whom applications, together with a curriculum vitae and the names and addresses of three referees, should be returned not later than 13th October, 1978.

ULSTER:
THE NEW UNIVERSITY
SCHOOL OF SOCIAL
SCIENCES
Lecturer in
Human Biology

A Lecturer in Human Biology is required to teach in the Nursing Studies programme. The post is available from an early date as possible. Medical qualifications are not necessary. Knowledge and experience of nurse education would be an advantage. Salary scale: £3,883-£7,754 per annum (with FRSU/US\$). Further particulars may be obtained from the Registrar, The New University of Ulster, Coleraine, Northern Ireland BT52 1SA, (quoting Ref. 78/95), to whom applications, including the names and addresses of three referees, should be returned not later than 15th September, 1978.

BIRMINGHAM
UNIVERSITY OF AUSTIN
DEPARTMENT OF SAFETY
AND HYGIENE
Applications are invited for the post of Lecturer in Safety Engineering, to be filled in October, 1978. The successful candidate will be responsible for the teaching of safety engineering to students of the Department of Safety and Hygiene. The post is on a scale of £3,000 per annum, plus pension and other benefits. The appointment will be subject to a period of probation of up to three years in duration. Further particulars may be obtained from the Personnel Officer, University of Austin, 1000 University Avenue, Austin, Texas 78701, USA. Closing date: 18 September 1978. (Please quote Ref. 78/THS).

LIVERPOOL
THE UNIVERSITY
DEPARTMENT OF
ELECTRICAL ENGINEERING
AND ELECTRONICS
Applications are invited for the post of Lecturer in the Department of Electrical Engineering and Electronics, to be filled in October, 1978. The successful candidate will be responsible for the teaching of electrical engineering to students of the Department of Electrical Engineering and Electronics. The post is on a scale of £3,000 per annum, plus pension and other benefits. The appointment will be subject to a period of probation of up to three years in duration. Further particulars may be obtained from the Personnel Officer, University of Liverpool, 69, Chester Road, Liverpool L69 3GB, UK. Closing date: 18 September 1978. (Please quote Ref. 78/THS).

University of Wales
Research
Assistant

Applications are invited for the post of Research Assistant in the Department of Chemical Engineering, to work on a project studying the behaviour of flexible fibres in suspension, with particular reference to paper making. The project will be carried out under the supervision of a senior lecturer. The successful candidate will be encouraged to pursue a Ph.D. The appointment, which will be for two years from 1st October, 1978, is on a scale of up to £3,500 per annum, plus pension and other benefits. Further particulars and application forms may be obtained from the Personnel Officer, University College of Swansea, Singleton Park, Swansea SA2 8PP, to whom they should be returned by Monday, 10 September, 1978.

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IRAN
THE ENGLISH LANGUAGE
CENTER OF AHA MIAH
UNIVERSITY OF TEHRAN
Applications are invited for the post of Lecturer in English Language, to be filled in October, 1978. The successful candidate will be responsible for the teaching of English language to students of the University of Tehran. The post is on a scale of £3,000 per annum, plus pension and other benefits. The appointment will be subject to a period of probation of up to three years in duration. Further particulars may be obtained from the Personnel Officer, University of Tehran, 1000 University Avenue, Tehran, Iran. Closing date: 18 September 1978. (Please quote Ref. 78/THS).

LIVERPOOL
THE UNIVERSITY
DEPARTMENT OF
ELECTRICAL ENGINEERING
AND ELECTRONICS
Applications are invited for the post of Lecturer in the Department of Electrical Engineering and Electronics, to be filled in October, 1978. The successful candidate will be responsible for the teaching of electrical engineering to students of the Department of Electrical Engineering and Electronics. The post is on a scale of £3,000 per annum, plus pension and other benefits. The appointment will be subject to a period of probation of up to three years in duration. Further particulars may be obtained from the Personnel Officer, University of Liverpool, 69, Chester Road, Liverpool L69 3GB, UK. Closing date: 18 September 1978. (Please quote Ref. 78/THS).

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Lecturer in
Human Biology

A Lecturer in Human Biology is required to teach in the Nursing Studies programme. The post is available from an early date as possible. Medical qualifications are not necessary. Knowledge and experience of nurse education would be an advantage. Salary scale: £3,883-£7,754 per annum (with FRSU/US\$). Further particulars may be obtained from the Registrar, The New University of Ulster, Coleraine, Northern Ireland BT52 1SA, (quoting Ref. 78/95), to whom applications, including the names and addresses of three referees, should be returned not later than 15th September, 1978.

IRAN
THE ENGLISH LANGUAGE
CENTER OF AHA MIAH
UNIVERSITY OF TEHRAN
Applications are invited for the post of Lecturer in English Language, to be filled in October, 1978. The successful candidate will be responsible for the teaching of English language to students of the University of Tehran. The post is on a scale of £3,000 per annum, plus pension and other benefits. The appointment will be subject to a period of probation of up to three years in duration. Further particulars may be obtained from the Personnel Officer, University of Tehran, 1000 University Avenue, Tehran, Iran. Closing date: 18 September 1978. (Please quote Ref. 78/THS).

LIVERPOOL
THE UNIVERSITY
DEPARTMENT OF
ELECTRICAL ENGINEERING
AND ELECTRONICS
Applications are invited for the post of Lecturer in the Department of Electrical Engineering and Electronics, to be filled in October, 1978. The successful candidate will be responsible for the teaching of electrical engineering to students of the Department of Electrical Engineering and Electronics. The post is on a scale of £3,000 per annum, plus pension and other benefits. The appointment will be subject to a period of probation of up to three years in duration. Further particulars may be obtained from the Personnel Officer, University of Liverpool, 69, Chester Road, Liverpool L69 3GB, UK. Closing date: 18 September 1978. (Please quote Ref. 78/THS).

University of Wales
Research
Assistant

Applications are invited for the post of Research Assistant in the Department of Chemical Engineering, to work on a project studying the behaviour of flexible fibres in suspension, with particular reference to paper making. The project will be carried out under the supervision of a senior lecturer. The successful candidate will be encouraged to pursue a Ph.D. The appointment, which will be for two years from 1st October, 1978, is on a scale of up to £3,500 per annum, plus pension and other benefits. Further particulars and application forms may be obtained from the Personnel Officer, University College of Swansea, Singleton Park, Swansea SA2 8PP, to whom they should be returned by Monday, 10 September, 1978.

ULSTER
The New University School
of Biological and
Environmental Studies
LECTURES IN
PSYCHOLOGY

Applications are invited for two lectureships in Psychology, available from 1st January, 1979. Applicants for one of the posts should have an interest in industrial or social psychology; for the other post no particular specialisation is required. Salary scale: £3,883-£7,754 per annum (with FRSU/US\$). Further particulars may be obtained from the Registrar, The New University of Ulster, Coleraine, Northern Ireland BT52 1SA, (quoting Ref. 78/100), to whom applications, together with a curriculum vitae and the names and addresses of three referees, should be returned not later than 13th October, 1978.

ULSTER:
THE NEW UNIVERSITY
SCHOOL OF SOCIAL
SCIENCES
Lecturer in
Human Biology

A Lecturer in Human Biology is required to teach in the Nursing Studies programme. The post is available from an early date as possible. Medical qualifications are not necessary. Knowledge and experience of nurse education would be an advantage. Salary scale: £3,883-£7,754 per annum (with FRSU/US\$). Further particulars may be obtained from the Registrar, The New University of Ulster, Coleraine, Northern Ireland BT52 1SA, (quoting Ref. 78/95), to whom applications, including the names and addresses of three referees, should be returned not later than 15th September, 1978.

THE POLYTECHNIC
HUDDERSFIELD
Department of Behavioural Sciences
RESEARCH ASSISTANT—
PSYCHOLOGY
The successful applicant will be engaged on an ongoing project concerned with attention control of processing capacity.

Department of Music
RESEARCH ASSISTANT
Applications are invited from suitably qualified persons for the post of Research Assistant in the Department of Music. The successful candidate will be engaged on an ongoing project concerned with attention control of processing capacity.

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Leeds POLYTECHNIC
School of Accounting and Applied Economics
LECTURER II IN ACCOUNTING (TWO POSTS)
Applications are invited from suitably qualified candidates with a particular interest in either Financial Accounting or Management Accounting. Initial appointments will be at an appropriate point on the Lecturer II scale, but progression to Senior Lecturer level can normally be anticipated. School of Health and Applied Sciences

LECTURER II IN NUTRITION AND DIETETICS
Applications are invited from State Registered Dietitians, who have recent clinical experience, to join a team involved in the teaching of degree and diploma students. It is anticipated that the successful applicant will undertake research in the section, which will also assist in the development of student projects. The post will also carry responsibility for certain clinical aspects of the course.

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GWENT COLLEGE OF HIGHER EDUCATION
Faculty of Science and Technology
a) TEMPORARY LECTURER I/II
Required as soon as possible to teach Industrial Measurement and Control topics to City and Guilds Part III level or equivalent.

b) TEMPORARY LECTURER I/II
Required as soon as possible to teach general Electrical and Electronic Engineering topics to H.N.D. level or equivalent.

Both the above posts are tenable until August 31, 1981. Candidates must have appropriate qualifications and industrial experience. Salary range £13,992 to £15,134. LII £4,101 to £5,051. For further details and application forms apply to: Principal Administrative Officer, Gwent College of Higher Education, College Crescent, Caerleon, Newport, Gwent NP23 1XJ. Closing date for applications, Friday, September 5, 1978.

Administration
Scientific Administration
in the
Science Research Council

The Science Research Council is one of five Research Councils funded by the Science Vote. It is responsible for developing research and training in all branches of fundamental science and technology which it does using its own Establishments and by giving grants to support work in universities and similar institutions. To help it discharge its responsibilities the Council has a number of Advisory Committees and Panels which are run from the Central Office in Swindon. A number of vacancies has arisen for young scientists to assist in the work of these Advisory Committees. The duties include the initial examination of grant applications, the organization and management of experiments, liaison with universities and co-operation with academic, industrial and Government research establishments.

Candidates, who should preferably be under 27, must possess a Science degree with First or Second Class Honours (or a higher qualification). An aptitude for administration is essential and successful applicants will be expected to develop scientific knowledge and interests beyond their own particular disciplines. Salaries will be related to age and experience but will be on the Scientific Officer/Higher Scientific Officer scale between £2,838 and £4,101, although exceptionally a higher salary may be offered for particularly relevant experience. There are opportunities for promotion to higher grades with salary maxima beyond £10,000; it is the policy of the Council to fill all vacancies from internal candidates if possible.

Successful applicants will receive 4 weeks' annual leave initially, plus 10 public and privilege holidays; there is also a non-contributory pension scheme. The Council has recently moved from London to a new custom-built office adjacent to Swindon Station. There will shortly be a restaurant and extensive recreational facilities are near the office. Application forms are available from the address below and the closing date for completed applications is 11 September 1978. Interviews will be held in Swindon. Science Research Council P.O. Box 18, Swindon SN2 1ET Telephone (0793) 26222, ext. 2178

Research
Officer
Information and Retrieval
System on Energy Research
The Energy Panel of the
Social Science Research
Council (SSRC) wishes to
appoint a Research Officer
with some knowledge of the
field of energy research for
twenty months, to undertake
a pilot exercise of an infor-
mation and retrieval system
for research in the
social sciences on energy.
The exercise is to be under-
taken jointly with the
Energy Technology Support
Unit, UK Atomic Energy
Authority, Harwell.
The appointment could be
on secondment, and should
start as soon as possible.
The Research Officer would
be able to use much of the
work of the Energy Technol-
ogy Support Unit, Harwell,
Berkshire, whenever neces-
sary.
The salary would be on
Range 1A, National Insur-
ance would be paid and the
question of pension cover-
age is negotiable. An allow-
ance for travel and subsis-
tence will also be made.
Further information and
application forms can be
obtained from Mrs Christina
Hudjinnathou, Secretary to
the Energy Panel, SSRC, 1
Temple Avenue, London
WC4V 0BH. Tel. 01-353 4352
x 7 to whom completed
applications should be re-
turned by 11 September, 1978.

UNIVERSITY MARINE
BIOLOGICAL STATION
VACANCY
The research is limited by
a grant, and the appointment
will be for a period of 12
months, with the possibility
of extension. The successful
candidate will be expected
to have a strong background
in marine biology, and to
be able to work in a team.
The salary will be on a
scale of £3,000 to £4,000
per annum, plus pension
and other benefits. The
appointment will be subject
to a period of probation
of up to three years in
duration. Further particu-
lars and application forms
may be obtained from the
Personnel Officer, Uni-
versity of Liverpool, 69,
Chester Road, Liverpool
L69 3GB, UK. Closing
date: 18 September 1978.
(Please quote Ref. 78/THS).

MANCHESTER
THE UNIVERSITY
INSTITUTE OF SCIENCE
AND TECHNOLOGY
POLYTECHNIC RESEARCH
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NEWCASTLE UPON TYNE
THE UNIVERSITY
DEPARTMENT OF
PHYSICS
Applications are invited for the post of Lecturer in Physics, to be filled in October, 1978. The successful candidate will be responsible for the teaching of physics to students of the University of Newcastle. The post is on a scale of £3,000 per annum, plus pension and other benefits. The appointment will be subject to a period of probation of up to three years in duration. Further particulars may be obtained from the Personnel Officer, University of Newcastle, 1000 University Avenue, Newcastle, UK. Closing date: 18 September 1978. (Please quote Ref. 78/THS).

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MINISTRY OF DEFENCE
(ARMY)
QUEEN VICTORIA SCHOOL, DUNBLANE
**PRINCIPAL TEACHER
OF PHYSICAL EDUCATION**

A vacancy exists for a Principal Teacher of Physical Education at this independent boarding school for 250 sons of Scottish Servicemen of ages 9 to 18.
The School has traditionally regarded Rugby, Swimming and Athletics as its major sports. It has a combined Cadet Force and participates keenly in the Duke of Edinburgh's Award Scheme.
The closing date for completed applications is 29th September, 1978.
The successful candidate will be expected to take up post in January, 1979, or as soon as possible afterwards. In addition, the successful candidate would be offered a quarter (married or bachelor) in the School Estate for which rent would be charged. He or she would be expected to share Boarding School duties, for which an allowance (currently under review) of £879 p.a. is paid.
The emoluments for the post are otherwise in accordance with the Scottish Teachers' Salaries memorandum.
Applicants should be registered teachers with the GTC (Scotland), or qualified to be registered.
Application forms, including Job Description, are available on request from:—
The Headmaster,
Queen Victoria School,
Dunblane,
Perthshire.

Live in London Rent Free

We are a large International hotel situated in the centre of London and are recruiting now for:

HOTEL CLERKS

As part of our Front Office team working behind the scenes in our Bill Office you will be fully trained to operate our computerized system.

You must have a good 'O' level education, some experience of clerical work and lots of commonsense.
Working a five-day, 35 hour week on a shift rota system you will have plenty of time off to enjoy London's West End. We can offer an excellent starting salary, smart uniform, weekly housekeeping and full accommodation in our comfortable staff annex.

This is your chance to start a new career for yourself with a large international company. For details and an application form please apply to Employment Officer, Strand Palace Hotel, Strand, London, W.C.2. Tel. 01-240 2725.



MASSEY UNIVERSITY

Palmerston North, New Zealand

LECTURERS IN COMPUTER SCIENCE

Applicants should have broad knowledge with one or more of the following areas: software development, hardware, data processing, systems analysis, and computer architecture and hardware. Applicants should also have a strong background in computer science and a minimum of five years' experience in the field. The successful candidate will be responsible for teaching and supervising students in the field of computer science. The salary for a lecturer is \$22,000 p.a. plus 10% superannuation. For further information and application forms please write to:—
The Chief Migration Officer,
New Zealand House,
Haymarket, London SW1Y 4TQ.
You should quote reference Inm 2/323/5.

OVERSEAS TEACHING POSTS

**HEAD OF AUDIO-VISUAL AIDS DEPARTMENT
(OMAN)**

Teaching Materials Production Specialist for Primary Teacher Training Institute, Muscat, opening October, 1978. Candidates should have a degree with PGCE and five years' experience in primary teacher training and audio-visual instruction.
Salary: £4,801 to £5,730 p.a. plus 10 per cent. Inducement.
Benefits: Free furnished accommodation; overseas and children's allowances. Two-year KETL contract, renewable. 78 WT 5

**SENIOR LECTURER IN PLANT GENETICS
(SRI LANKA)**

University of Sri Lanka, Jaffna Campus.
Candidates should hold a Ph.D., preferably in Plant Genetics, and have at least five years' teaching experience. Preferred age range 30 plus.
Salary: £5,881 to £7,707 p.a.
Benefits: Personal allowance; free furnished accommodation and other benefits. Two-year Formula contract. 78 PU 102

**LECTURERS IN ENGLISH
(SINGAPORE)**

Institute of Education, Singapore. Fifteen lecturers to teach Certificate and Diploma of Education courses in the Department of English Studies.
Degree plus MA in English or Education plus three years' school teaching or specialist experience. A postgraduate qualification in TEFL/TESL or linguistics and teacher training experience is desirable.
Salary: \$1,705 to 2,420 p.m. (rate of exchange approximately \$4.30 equals £1).
Benefits: Housing allowance; displacement allowance; gratuity on completion of contract, Two or three year contract. 78 PO 141-155

THE BRITISH COUNCIL

NEW ZEALAND

Central Institute of Technology

Head of School of Occupational Therapy

The Council of the Central Institute of Technology invites applications for the position of Head of the School of Occupational Therapy.
The person appointed will assume responsibility for the academic direction of the diploma course in occupational therapy and a student body of close to 300. The Head of the school is expected to maintain a close and effective relationship with hospitals, community programme and practising therapists for the provision of clinical facilities which meets the registration requirements of the New Zealand Occupational Therapy Board (PO Box 5013, Wellington).
The Head of Department position has a salary of NZ Dirs 17,074 per annum plus NZ Dirs 385 (General wage order). Assistance with travel and related removal expenses will be available to the appointee. For further information and application forms please write to:—
The Chief Migration Officer,
New Zealand House,
Haymarket, London SW1Y 4TQ.
You should quote reference Inm 2/323/5.

**LECTOR IN ENGLISH
(YUGOSLAVIA)**

University of Pristina. To teach English Language to students in the Department of English. Starting date October, 1978.
Candidates, men only (single or married without children), should have a degree in English or Modern Languages; TEFL qualification with phonetic component desirable.
Salary: 7,800 new Dinars per month (currently £1 equals ND 35) not convertible, plus £1,353 p.a. paid by the British Council in the U.K.
Benefits: Free accommodation. One-year contract, renewable. 78 U 14

**LECTOR IN ENGLISH FOR SPECIAL PURPOSES
(YUGOSLAVIA)**

University of Ljubljana. To teach Technical English to university students of science and technology. Degree and TEFL qualification essential, postgraduate qualification in linguistics desirable. Interest in, or experience of, materials production or ESP. Substantial experience of TEFL overseas essential and recording experience an advantage. Preferred age 30-40.
Salary: 8,000 to 7,000 new dinars per month net (present rate of exchange £1 equals ND 35), non-convertible plus annual subsidy of £1,353 paid by the British Council in the U.K.
Benefits: Free medical services; employer's portion of superannuation (if applicable). One year contract, renewable. 77 RU 14

**SENIOR LECTURER IN ENGLISH
(MALAWI)**

Department of English, University of Malawi, Zomba. To teach English to university students, especially those training to become teachers, and to supervise postgraduate students and the language laboratory. First degree in English or Modern Languages and MA in English Language or Applied Linguistics. Substantial experience of teaching English for secondary schools and ability to use language laboratory essential. Experience in examinations work, CCTV and ESP desirable.
Salary: £5,681 to £7,707 plus 10 per cent Inducement. Benefits: Personal and children's allowances; free furnished accommodation. Two-year KETL contract. 77 TU 142

Return fares are paid. Local contracts are guaranteed by the British Council. Please write briefly stating qualifications and length of appropriate experience, quoting relevant reference number and title of post. For further details and application form to The British Council (Appointments), 65 Davies Street, London W1Y 2AA.

**NORTH BRISBANE COLLEGE
OF ADVANCED EDUCATION**

BRISBANE AUSTRALIA

PRINCIPAL LIBRARIAN

North Brisbane CAE is an autonomous multi-purpose institution offering undergraduate courses in business administration, industrial relations, secretarial studies, education, arts and sciences, welfare and recreational studies and education. The College enrolls 1,800-2,000 students and operates on two campuses, 10 km apart, in the North Brisbane suburbs Kedron and Carlingford.
The headquarters of the Library are at Kedron but have a substantial branch library at the Carlingford campus. The Library holdings include 43,000 print items, over 1,700 serial titles and growing stocks of audio-visual materials. An automated catalogue has been developed specifically for this Library and it uses a bureau of the CAENET computer network located at the College. (HPC3000 computer).

The College is interested in the concept of an educational resource centre which the management of the resources of the Library and the Audio Visual Centre might be appropriately co-ordinated. Applicants should possess a formal qualification in librarianship as well as a degree or higher qualification in an appropriate field. Experience with an automated catalogue and facility with audio-visual services will be regarded as an advantage.

The salary for the position is negotiable, but is likely to fall within the Senior Lecturer range \$20,355 to \$23,737 per annum. The Principal Librarian is responsible to the Director of the College. For further information and application forms please contact: Personnel Officer, P.O. Box 117, Kedron, Qld. 4057 Australia; telephone (07) 87 7077.
Applications close Friday, October 27, 1978.

OVERSEAS DEVELOPMENT

KNOW-HOW vital to developing countries

Primary Teacher Trainers

Kenya

PRIMARY METHODS: ENGLISH, READING AND WRITING SKILLS, SCIENCE AND MATHEMATICS

Lecturers are required to participate in the British Primary Teacher Training Programme in Kenya. Duties will involve initial and in-service Teacher Training, and a certain amount of involvement with curriculum development, directed to an improvement in the quality of Primary Education. Preferred age limit 53 but well qualified and appropriately experienced candidates up to 58 considered. Strong preference given to graduates with teacher training college experience, but candidates with non-graduate who have had considerable experience of primary or middle school teaching and of teacher training (whether in-service or pre-service), including close contact with a college of education, in the UK also considered.

For posts in Reading and Writing skills, Lecturers in Primary Methods who are able to teach Reading and Writing techniques to Primary teacher trainees will be preferred. Lecturers as English Specialists will be deployed in the teaching Mathematics with experience of the professional training of teachers at this level will be dependent upon the needs of the Kenya Education Service at the time the school age or to those who have children who can be sent to boarding school, as Kenyan children are not available. Appointment 30-36 months.

Salary in range £5,518-£8,156 pa including allowance normally tax-free in range £1,923-£3,130 pa. Gratuity 25% pa of basic salary.

Other benefits include free family passages, children's education allowance and subsidised accommodation. An appointment grant to £300 and an interest free car purchase loan to £1,200 payable in certain circumstances. Superannuation rights may be safeguarded. Applicants should be citizens of the United Kingdom. For full details and an application form please apply, quoting ref. 3153, clearly indicating which post is being applied for and giving details of age, qualifications and experience to:—



Appointments Officer,
MINISTRY OF OVERSEAS DEVELOPMENT,
Room 301, Eland House,
Stag Place, London SW1E 5JH.

HELPING NATIONS HELP THEMSELVES

NEW ZEALAND

UNIVERSITY OF WAIKATO

**APPOINTMENTS IN
MANAGEMENT STUDIES**

Postgraduate students are available at the University of Waikato for appointments in the Department of Management Studies in the following fields:

1. ACCOUNTING AND FINANCE
2. BUSINESS LAW
3. BUSINESS POLICY

It is expected that one appointment will be made in each of the above areas. The successful candidate will be expected to undertake research in the field of their appointment and to teach in the Department of Management Studies.

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NEW ZEALAND

New Zealand Technical Correspondence
Institute

CIVIL ENGINEERING TUTOR

A vacancy exists for a tutor of Civil Engineering and applications are invited from Civil Engineers who have a University Degree, are members of the Institution of Civil Engineers and have suitable industrial experience preferably in Traffic Engineering. Ability to write a wide range of Civil Engineering Courses is also necessary. Assistance with travel and related removal expenses will be available to the appointee.

Salaries will be paid in the following ranges:—
T2 NZ Dirs. 10,928 to 14,126 (plus NZ Dirs. 385 NZ NZ Dirs. 13,229 to 15,401) (General wage order).
For further information and application forms please write to:—

Chief Migration Officer,
New Zealand House,
Haymarket,
London SW1Y 4TQ.
You should quote reference Inm 2/323/5.

**THE WESTERN AUSTRALIAN SECONDARY TEACHERS' COLLEGE,
NEDLANDS, WESTERN AUSTRALIA**

Applications closing on Thursday, 7th September, 1978, are called for the following position:—

CO-ORDINATOR OF EXTERNAL STUDIES

(Position 78/20)

(AI Lecturer or Senior Lecturer Level)

QUALIFICATIONS: Applicants must be well qualified academically with suitable experience in this or related fields.

CONDITIONS OF SERVICE: Similar to those applying in Colleges of Advanced Education in Australia.

SALARY: Negotiable within the range.
Lecturer: \$A15,179-\$A19,940 (approx. £9,327-£12,253)
Senior Lecturer: \$A20,365-\$A23,737 (approx. £12,514-£14,588)

Pro forma of application, together with the Conditions of Service and Duty Statement can be obtained by contacting:—

Migration Liaison Officer,
Western Australia House,
115 Strand, London WC2R 0AJ

WAIKATO

(University of)

NEW ZEALAND

LECTURER IN PSYCHOLOGY

Applications are invited for a postgraduate research fellow in the Department of Psychology. The successful candidate will be expected to undertake research in the field of their appointment and to teach in the Department of Psychology. The Department of Psychology is a multi-disciplinary department. The Department of Psychology is a multi-disciplinary department. The Department of Psychology is a multi-disciplinary department.

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Don's diary

Monday

I am not sure whether I am a don but my scout always describes me as such and who am I to question such an authority? Since graduating I have spent half my time in Oxford and half in German archives. I like being in Germany but miss English breakfasts. Eight o'clock in the morning is the one time when Germans don't seem to eat fried sausage.

This week I am working in Berlin. The archive is situated about 10 miles from the centre of the city in the pleasant green of Krumme Lanke. After a quick check by telephone the enormous security official decides to let me in. His diet must consist of something more sustaining than the sandwiches I have brought for my lunch. According to the picture on the wrapper, the bread for these was prepared by a group of dancing Westphalian peasants clad in Oxford bags. I reflect that the society of these gentlemen would brighten up the reading room, which as usual I have all to myself.

In the evening I work my way through an antiquariat (second-hand bookshop) near the Nollendorf Platz. This area seems to be the second-hand book centre of Berlin; it borders on the red-light district. Berlin is much the best city in Germany for second-hand books; I am not in a position to make comparative comments about the red lights.

This evening my host has invited a friend of his from an East German university to dinner. He is a party member and makes a good ambassador for the DDR through some subjects seem taboo. After a few drinks he starts to address me as "du". Once he has done this several times I begin to call him "du". After a few more "Sies" he says that he would like to offer me the "du" form. I agree to this willingly, so we toast each other in Aquavit.

Tuesday

The archive has given me a typed list of references for the National Socialist I am interested in. This is impressively efficient. In general German archives are pleasant to work in, and the staff know what they are doing. A great deal of their material is catalogued, so the element of pot luck in finding documents is comparatively small.

Unfortunately a large proportion of the records from the period I am studying have been lost, and once or twice German archivists seem to have relented the iron when telling me that the documents I am interested in were destroyed by Allied bombing. The last time this happened the archivist in question tactfully pointed out that it was the Americans and not the British who had been responsible.

Wednesday

I go to the bank and acquire \$10 in pay for various photocopies I have ordered. In an attempt to ensure that they will be ready before I leave, I ask to see the director of the archive, who is American. It is the first time I have spoken English for over two months. (The last time was with an English travelling salesman who stopped me in front of the cathedral in Speyer to ask for directions; alas, my knowledge of his language was useless in the face of my ignorance of his destination.) The director listens politely and impassively to what I have to say, and replies that he will look into the matter. On my thinking him for this he replies, rather disconcertingly, "you bet".

In the evening I take my host out to dinner in a Greek restaurant. On the way he points out the courtyard where von Stauffenberg was shot. Despite his historical and moral stature, von Stauffenberg seems to have fairly badly in the allocation of street and square names. This may be due to a lack of euphony

in his name. The street named after him near his place of execution is very short.

My host and I find it difficult to agree about the merits of the German resistance. Conversation isn't easy as numerous *Autobahnen* seem to intersect outside the restaurant. During dinner we consume large quantities of retsina, and I am told that if one drinks much retsina in the evening a few glasses of water the following morning will make one feel merry again. I make a note to try this the next day.

Thursday

It doesn't work. At lunchtime I go as usual to a nearby park. I sit on



West Berlin: sausages but no English breakfasts.

a bench at the bottom of a small valley and mechanically eat sandwiches. It is completely silent. Suddenly there is the rattat-tat of a machine gun, banging its head methodically against a tree. It must be working on a thesis. From the frequent pauses it seems there must be problems in the development of the argument.

Near the bench someone has carefully painted several red swastikas, appropriately enough on a litter bin. This also bears the legend of "Wickling Jugend". This is the name of a small neo-Nazi youth group. After spending the morning reading about their predecessors and their depressing to encounter this kind of sloan.

After my stint in the archive I am to go to Wannsee to visit a friend who teaches at the Free Uni-

versity. Five years ago I worked as an assistant bread salesman in Wannsee, amongst other places. Then a certain amount of difficulty was caused by the fact that my boss expected me to realise what he wanted me to do by telepathy but as his routine never varied I was eventually able to do this.

Friday

My final day in the archive. I am pleased to find that the photocopies I have ordered are ready. As usual I discover at the last minute that several of the files I have neglected seem to be bursting with fascinating information. After a final frenzied effort I hope I have



West Berlin: sausages but no English breakfasts.

covered the most important points. Working under these circumstances I avoid one of my usual mistakes: recording much superfluous information.

On leaving I experience conflicting emotions, relief that I can stop working on a thesis. From the frequent pauses it seems there must be problems in the development of the argument.

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Saturday

We all awake as the train stops. It must have been rejected by the local authorities for the wrong reasons. As a general rule, the local authorities are consequently raised by the Association of County Councils, which has always been visited by a border official. It is a fact that I haven't got a permit, saying that I am a writer, down the personal letter from my passport, are less than anti-terrorist computer. I am told that the local police have no point in my going to work without a permit, but they are not sure.

It is curious how often German borders are closed. I am told that the local police have no point in my going to work without a permit, but they are not sure.

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HIGHER EDUCATION SUPPLEMENT
Kee Printing House, Square, London WC1X 8EZ. Telephone 01-837 1234

Let's get Oakes moving again

One looks at the Oakes report and asks the wrong question: is the wrong question is now going to be asked. As a general rule, the local authorities are consequently raised by the Association of County Councils, which has always been visited by a border official. It is a fact that I haven't got a permit, saying that I am a writer, down the personal letter from my passport, are less than anti-terrorist computer. I am told that the local police have no point in my going to work without a permit, but they are not sure.

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Near the bench someone has carefully painted several red swastikas, appropriately enough on a litter bin. This also bears the legend of "Wickling Jugend". This is the name of a small neo-Nazi youth group. After spending the morning reading about their predecessors and their depressing to encounter this kind of sloan.

After my stint in the archive I am to go to Wannsee to visit a friend who teaches at the Free Uni-

versity. Five years ago I worked as an assistant bread salesman in Wannsee, amongst other places. Then a certain amount of difficulty was caused by the fact that my boss expected me to realise what he wanted me to do by telepathy but as his routine never varied I was eventually able to do this.

LETTERS TO THE EDITOR

Universities and part-time students

Sir,—Your front page item on universities and part-time students (THES August 11) leaves a very inaccurate impression of university efforts in this area. Dr Keith Hampson should be answered with better information and comment than is given there.

For a start the number of part-time students in conventional first degree courses is not an appropriate measure. For example the University of Strathclyde has 2,448 part-time students of whom 57 are on undergraduate courses. The important point which must be made is that the majority of part-time students are self-financed, financed by employers or through extra-mural arrangements. Where the money is made available most universities are glad and are able to respond with imaginative and significant developments.

However, the finance for conventional undergraduate students reaches universities in the form of recurrent grant and amounts of recurrent grant are consistently related to full-time student numbers. There is as yet no systematic and evident evidence of Government financial support for part-time undergraduate students.

The University of Strathclyde recognises the need for such developments and has presented detailed plans to a variety of possible sources of funding. Limited experiments are being mounted at the university's own expense but at a time when recurrent grants are barely adequate for full-time students the university cannot enter into extensive commitments to part-time undergraduate students without adequate recognition in terms of the current grant of the costs of pro-

viding for such students or their equivalent in full-time numbers.

Universities are now being asked to return information on all types of part-time students in a more complete way and it is our hope that they will eventually receive both credit and financial encouragement to pursue further the considerable efforts already being made to meet the increasing demand from part-time students.

DAVID MORRELL,
Registrar,
Strathclyde University.

Sir,—Dr Hampson's pronouncement about part-time students in universities is surely a very small voice of protest against a system of arrangements. Where the money is made available most universities are glad and are able to respond with imaginative and significant developments.

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CDP funding

Sir,—I read with great regret that I read (THES July 28) of the Inner London Education Authority's decision to cut off funds in the Committee of Directors of Polytechnics. It must almost be certain that whatever national decision is taken towards the funds of this prominent body, it will continue to exist. One might enquire as to what better legal authority there is for setting up such bodies as the Association of Metropolitan Authorities and the Association of County Councils and for financing those bodies. We all assume that there is a substantial return in the way of efficiency and effectiveness if managers and persons responsible for management do meet and are able to resolve problems collectively.

It must be recognized there will not always be harmony within such groups, let alone in their relationships with outside groups. If the views of the lower groups in the "nicking order" are called by the threat of withdrawal of their resources by a higher group, then one must accept that autocracy is undesirable prevalent in the system, and that we do not have an assumed democratic situation.

It is now obvious that power over the CDP is in the wrong hands, and it could be argued that it would be better if such power, as has been suggested, was placed in the hands of the polytechnics collectively by way of a levy on each individual polytechnic. But one might expect that in such a situation a member with a minority view could easily withhold its contribution over some issue.

It seems evident, therefore, that power exercised by way of financial sanction should not be so invested in such a way that free opinion is censored. The only system of financing the CDP must therefore be the second alternative suggested by the AMA and the ACC, i.e. by way of the rate support grant. Restrictions should then be limited to accountability and audit.

The freedom of officer groups to meet to discuss and give opinions on problems pertinent to their professional expertise, must be upheld (the financing of the management of polytechnics is a pertinent subject for polytechnic officers to discuss and offer opinion on). Such freedom must be extended to all groups. One might be forgiven if one wonders, therefore, whether the ILEA is perhaps administering to the CDP a drop of its own medicine.

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